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TOP TIPS ● FIRST REVIEWS ● BEST ADVICE

CPC



PLUS



The ultimate CPC peripheral

AMSTRAD ACTION

NOT an official Amstrad publication!

Far Out!

Find out inside how crack continental coding teams are pushing the CPC to its outer limits – and beyond

BARGAINS! A feast of great value CPC goodies INSIDE



Burn rubber Crazy Cars III is here!



One big DOS

Choosing a 3.5-inch disk drive? Then get the right disk operating system!

Is your covertape missing? If so, ask your newsagent where it is!

ALSO ON DISK!

Want a disk version of the covertape? (6128 Plus owners take note) See the tape pages for ordering details.

Line u

Serious

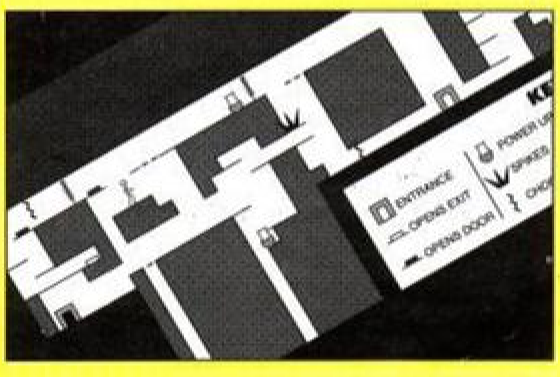




Main feature

Games

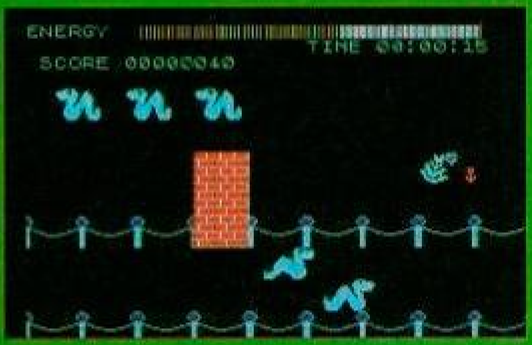




Regulars

ACTION PACK

Arcade/puzzle fans will love this month's complete game, and more serious types can get stuck in to no fewer than three superb utilities. PLUS we've a brand new type-in checker. Read on...



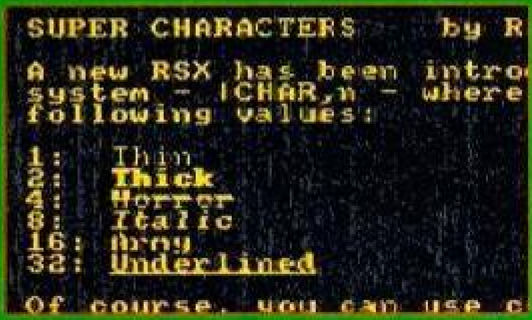
1 Wriggler

Control a maddened marauding maggot in the Annual Maggot Race... but a maggot's life is a dangerous one, and there are many hazards lying in wait! (Maggot-racing never really caught on over here, did it?)



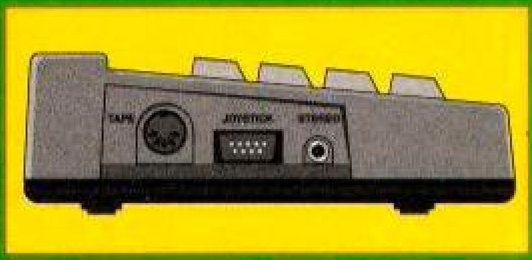
2 MagicDOS

To get the full 800K capacity from a plug-in 3.5-inch drive, you need special disk operating software... you need MagicDOS!



3 Superchars

Fed up with your Amstrad's standard screen font? This excellent utility gives you have a dozen to choose from! What's more, you can combine them for dozens of different effects



4 Flik

128K owners can now have TWO CPCs running at once! Flik splits your RAM into two independent 64K chunks to let you run two applications simultaneously!



5 Type-Ins

Four readers' programs first published in AA87 – if you didn't type them in, or couldn't get them working, here they are, ready to run! They are Maths Processor, Art Studio, Times Tables and Calendar.



6 Type-checker

We've replaced the old AA Type-righter utility with this new, improved version giving a clearer display and fewer errors. You'll need it for this month's Type-ins...

7 Pokes

The Winning Team gets a good poking as does the Codies' Captain Dynamo!

Just turn the page for all the details ➡ ➡ ➡

ACTION PACK

Wriggler

250 screens of frantic wriggling action! The only thing is, we can't agree over whether your hero's a maggot or an earthworm...

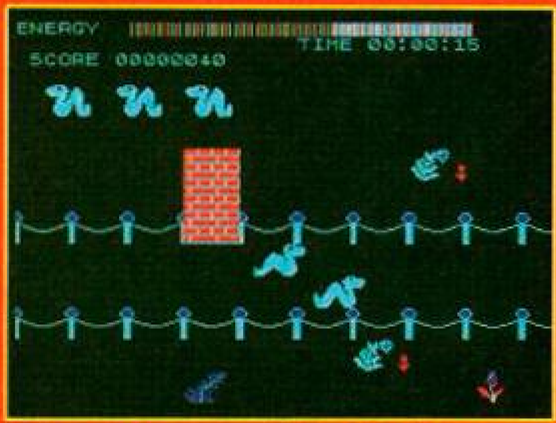
Loading: Rewind to the start of side 1, then press CTRL + SMALL ENTER key. (Followed by PLAY and any key, as prompted.) The main menu screen will then load. Select Wriggler and press the ENTER key.

Maggots eh? They think they can do as they please. And none of them have got jobs. They just lounge around all day, eating the soil that we bin workin' on wi' our own 'ands 'n' all. Should be locked away, or squidged. That'll teach 'em. (*Sure you're not thinking of earthworms? – ed. Earthworms perform a valuable function you know. They aerate the soil, allowing plant roots to breath and... ahem, yes, well. Carry on, why don't you?*)

Through years of maggot oppression, decades of enslaved maggots dying at the hands of their ruthless leaders, not daring to question the authority that controls their lives through their fear of instant (*I'm sure you're thinking of earthworkms, you know – ed*)) death.



Argggh – you're dead! Since when did maggots/earthworms have skeletons?



Look, they're neck and neck! 'Cept that earthworms/maggots don't have necks.

Be that as it may, this game is nothing to do with the suffering of maggot-kind. If you like, it's about one of the distractions they used to relieve the anguish of their tortured lives. Maggot-racing. Yeah. You could be the first in thirty years to survive the course.

The game starts with the gunshot of the starter's pistol, and you're off. The idea is to basically wriggle around, and get out of a labyrinth that's over 250 screens big. One hint for you here: follow your fellow racer around the course, and it'll probably take you to some new places, and to some helpful objects.

Another hint: Everything that moves and isn't maggot-like in appearance will undoubtedly kill you. Here's what the game's inlay says: "Watch out for that spider! One touch from him and you are dead! Look – a parachute. You may need that later... But you cannot get to it as you slip off the moving floor and with your life energy drained plunge to your death with only the thought of what might have been..." (*That's no life for an earthworm – ed*)

The keys are unbelievably easy to define on the title screen, so there's no point whatsoever telling you what they are. Fire, incidentally, is a 'pick up', 'drop', 'use' type thing. Quite how an entirely limbless creature can manipulate anything is beyond us, but there you are.

Dig these levels

1 The Garden The main maze bit of the game, that also happens to be hideously difficult, but fun nonetheless.

2 The Scrubland The relaxing bit... Leisurely, and a chance to build up your strength before the main onslaught begins.

3 The Underground The really worrying bit, with moving platforms, creepy things, and deep, deep pits.

4 If you got papped up enough by the underground, then you've got no chance matey... You'll need the lift and the keys, and if you manage this, then you've finished the game!



A worm's eye view



Your score. It, erm, goes up as you get more points. What more can we say?

Your energy rating – it may look a lot, but can go down really quite fast at times!

Your time so far. Don't worry, it goes up rather than down, so you can't run out.

These little maggoty type things represent your lives, skeletons being spent ones.

An exit to a neighbouring screen. Screens can have more than two, letting you explore.

These are walls, restricting your movement around the maze.

Aahh! What a pretty little flower! We'd pick it, only it's not at all real.

Our brave and handsome maggot struggling for survival, etc.

Wriggler controls
Keyboard or joystick control
Keys can be reconfigured



You want keyboard control? We've got the biggest choice anywhere, sir.

Magic DOS

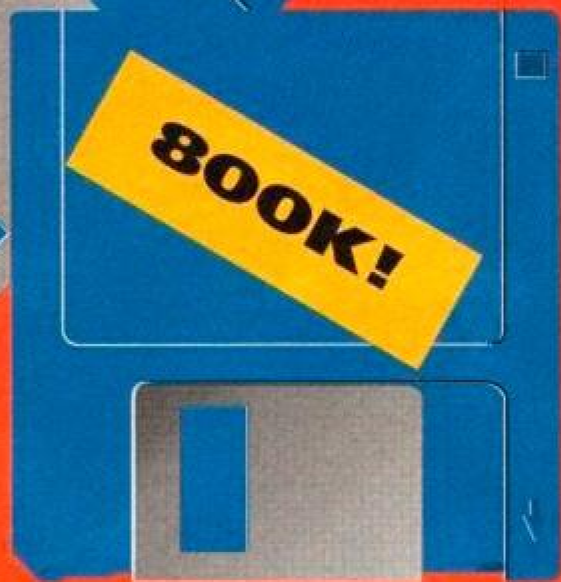
Got a 3.5-inch disk drive? Then get one of these! It's an extended disk formatting system that gives you 800K on a disk!

Loading: MagicDOS only runs from disk. Type RUN "MAGDOS.BAS". MagicDOS is on side 1.

Written by Serge Querne (leader of ace French programming team Logon System), this is a complete operating system for 3.5-inch drives. It lets you store 410K per side – if you have a side switch, you can cram 820k onto each disk!

When it's been transferred onto disk, type RUN"MAGDOS" to load it. You can then choose to format your disks, install Magic DOS (necessary before you load any programs from the B-drive), or copy files from one disk to another (this option only works on 128k machines). Note that, since it's a French program, to say "yes" to an option, you must press O (for "oui"!).

A menu program (MENU.BAS) has been included to make using Magic DOS even easier. If you want to make a 3.5-inch disk full of games initialise itself, load this program, alter the information after DATA in line 100 to read the number of programs, followed by each program's name, its filename, and whether it's machine code (M) – i.e. with the extension .BIN - or otherwise (A). Separate each one with a comma. (An example is present in the copy on the tape). Then SAVE onto your freshly-formatted 3.5-inch disk – it must be the first thing you save. To update it later you must erase the existing copy first. (Make sure that Magic DOS is NOT installed first).



Flik

Got a 6128? Now you can have two 64K machines, thanks to this excellent RAM-splitter – it lets you run two progs at once!

Loading: FLIK is on side 2 of the covertape, and is best transferred to disk. Then type RUN "FLIK.BAS".

In response to a reader's request, we've put this great little utility for 128K owners (written by Richard Moulton) on the covertape. It lets you hold two programs in memory at once, and flick between them with a single keypress: in effect, splitting your 128K CPC into two 64K machines.

Once it's loaded, all you have to do is press CTRL, SHIFT and TAB together, and the two environments will be exchanged. So, for example, you could have a word-processor in one bank, and a game of *Tetris* in the other.

The only proviso is that the disk drive should not be in use when you flick. Apart from that: have fun! (Incidentally, if you'd like to see a particular PD proggy on the covertape, we're always open to suggestions...)

Superchars

Got a 6128? Now you can have two 64K machines, thanks to this excellent RAM-splitter – it lets you run two progs at once!

Loading: Supercharacters can be run either from tape or disk. Simply run "CHARS.BAS". This sets up an RSX and displays a screen showing you what to do. It's on side 2 of the tape.

The third of this month's serious threesome adds a new RSX (bar command) to your system, ICHAR. This command transforms the normal character set into a thin one, a thick one, an italic one... the choice is yours! It's an ideal method to spice up boring text displays and add emphasis. Instructions are included in the program (turn off any ROMs before running it).

How to load your covertape

Just pop the tape into your machine, making sure it's rewound to the start of Side 1, and then press CTRL + ENTER (or type RUN""), then press any key and the tape will start loading.

Within a few moments you get a menu screen. Choose the program you want using the Spacebar, then hit the Return key.

- Note that only *Wriggler* is loaded from directly from the main menu. The rest of the programs – *MagicDOS, Flik, Superchars, Type-ins, Type-checker* and the game pokes – are all run from BASIC. The menu lists them, but you must quit back to BASIC to run them. (Use the RUN"(filename)" command.
- If you have a disk drive either built into your machine or plugged in, you will first have to type Itape to switch the computer to tape loading. You get the I character by pressing SHIFT+@. Then just proceed as normal.

Duff tape?

We go to great lengths to make sure that our covertapes work properly. However, if you still have difficulty, try this:

- Loading at several different volume levels (if you're using an external tape recorder) • Cleaning the tape heads. This can be done with any commercially available cleaning kit • Adjusting the cassette recorder's head alignment. The alignment screw is located just to the left of the tape head, and is usually accessible through a small hole. Turn it a fraction at a time with a jeweller's screwdriver. When the crispest sound is heard, the alignmnent is spot on. • Tapping the cassette gently against a table edge – the spools *may be sticking or jammed.*

If you still can't get the tape to load then send the tape, along with a brief description of the problem and an SAE to:

**AA89 Covertape Returns,
Ablex Audio Video Ltd,
Harcourt, Halesford 14,
Telford, Shropshire
TF7 4QD**

Want a disk version?

The covertape contains its own tape-disk copying program. To transfer the programs to tape, simply follow the instructions on the tape.

- 464 owners with external 3-inch drives will have no problems, but 6128 owners will need a cassette player with a REM socket. Stopping and starting the tape manually is difficult.
- 6128 Plus owners who've had their machines modified to load from tape can transfer the programs to disk, *but must rewind to the start of the tape again before the transfer starts.*

You can also order a disk version of the covertape from our duplicators, Ablex. Snip off the coupon on the corner of this page and send it with a cheque/PO for £2.00 to:

**AA89 Disk Offer, Ablex
Audio Video, Harcourt,
Halesford 14, Telford,
Shropshire
TF7 4QD**

Disk 89 Token

Type-ins

Here we are, all the reader progs from AA87 – just in case you couldn't get them working (or couldn't be bothered – lazy lot)

Loading: All these type-ins must be loaded from BASIC. Simply type RUN"filename" to load the program. They're all on side 2.

ART.BAS

This, erm, nifty program allows you to draw pictures, etch-a-sketch style. You can move your cursor using the joystick, and hit Fire to change the colour of your ink.



What's day's your birthday? Run Calendar...

CALENDAR.BAS

Fancy a date? *(OK OK, belt up Simon – ed)* This is a rather clever little program designed to give a calender of a particular month in any year. Input the year and month (numerically), and you can work out what day your 57th birthday is on, or whether the flood was on a Monday or not.

MATHS.BAS

Ever had to calculate probabilities in a hurry? Perhaps not, but have you ever been unjustly hassled by someone with some standard deviation that needs doing? No, neither have we, but if you ever are, this is the program to boot up.

TABLE.BAS

On the general theme of maths applications (?), here is a program that prints your times tables on the screen, so next time your'e lying in bed, and you suddenly want to know what six times nine is, *AA* saves the day (or night).

Typechecker

Look, a new typing checker! It's now easier to use and the codes are easier to read AND the whole system's more foolproof

Loading: Type-checker is on side 2 of the covertape. To install it, type RUN"TYPECHK.BAS" (it can subsequently be switched on and off).

As with before, the checksum codes are displayed on the left hand side of the listing, though will appear in highlighted (inverted) form on the right hand side when you list the program yourself (for greater viewing ease). As before, the program will not provide a correct code whilst you are typing the program, only when it is LISTed afterwards. Another important warning that must be repeated is that YOU MUST NOT ENTER THE CHECKSUM CODES THEMSELVES, even though they appear on the listings.

Turning *TypeChecker* off (it is automatically initialized when you RUN the above program) and back on again is quite simple:

POKE &BB5B,0 To turn it off
POKE &BB5B,3 To turn it back on again

And that's all there is to it!

Pokes

Here we go, another heap of pokes for top Amstrad games...

Loading: These pokes (side 2) must be run from BASIC. Simply type RUN"filename".

Klax (WINKLAX.AP) Escape from the Planet of the Robot Monsters (WINROBOT.AP) Vindicators (WINVIND.AP)

The world's most prolific poker, Andy Price of Dunstable has been playing around with the *Winning Team* compilation disk this month and put together pokes for three of the main contenders. *Klax* gets infinite credits, *Planet of the Robot Monsters* has infinite lives for both players as does *Vindicators*.

Captain Dynamo (DYNAMO.LR)

Lee Rouane of Chesterfield has ventured into the world of the poke and put together a nice one for the Codemasters game *Captain Dynamo*. He gets infinite lives, plus pause (P) the game and press Q you will move forward a level.

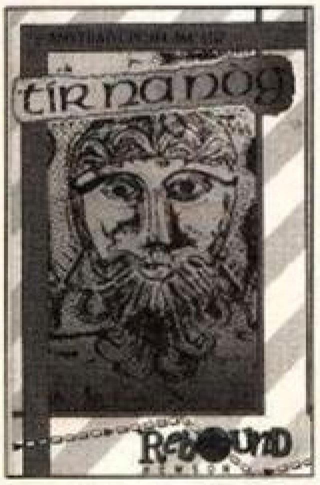
How to use pokes

1. Load the poke you want to use into your computer
2. Take out the ocvertape and put in your tape game or disk
3. Type ldisc if you are playing a disk game
4. Type RUN to run the routine (not RUN" (CTRL + ENTER) and you normally would)

You should find that the game will run normally, or you will be given further instructions.

Reaction

The worst game ever, nasty things to say to an Amiga owner and more controversy over Type-ins. Rod Lawton answers your letters for the last time... (Why? Read Action Zone this month to find out!) Keep on sending in those letters, though...



Tir na Nog: It actually means 'mountain stream which whispers gently past the back of Sainsburys' car park'.

Cut it out!

I was looking through some old *AA*s and what I want to know is who is/are the guy(s) that seem to appear in the background of some photos in the magazine. If you want to witness these strange occurrences for yourself, take a look at the following:

AA65 page 13: Shows a woman typing at keyboard – but hey, who's the dude with the hat scratching his ear – a Stan Laurel lookalike?

AA83, 84, 86: In the 'Ask Alex' section of the magazine you display a photo of Alex – and yet again there is a rather strange-looking character in the background – I mean, what a coincidence that Alex's head is tilted just enough that the figure can't be seen!

I'm sure I've seen another one somewhere but I can't find it right now. Were these 'people' (presumably posters or cardboard cut-outs) inserted into the background by mistake, or was it deliberate?

By the way, it may be a bit late now, but I have a contribution to make to the *Tir na Nog* theory. There is a new film out at the minute which is set in Ireland and contains a horse by the name of 'Tir na Nog'. One of the characters asks the other character why the horse is called this, and the character replies: "because it is from 'below the sea'". Could the film-makers be right?

Mr Moanalot
Draperstown

Well, Mr Moanalot (or can I call you 'Moanie'?), that Stan Laurel look-alike scratching his ear in AA65 is in fact, er Stan Laurel scratching his ear. And yes, Alex does have a poster on the wall behind here in AA83, 84 and 85. You see whenever we photograph people, we make a point of not saying, "oh, and can you take all the posters off the wall, by the way". I seems a bit rude, somehow.

You don't spot trains, do you... no? Just a thought.

As for the Tir na Nog explanation, we think you could be right. We think you could be wrong, too. Frankly, we just don't care any more.

Spot the personality

Did you see Frank O'Connor on *Gamesmaster*?

Chris Voytal
Hayes

Ah yes, we taught him all he knows. Apart from the Sean Connery impression, that is – he could do that anyway. You should spot Jimbo Leach (another ex-AA staffie) on the prog, too – he's Games Editor on Future Publishing's new GamesMaster magazine (out now!).



Count Duckula 2 is the worst game ever, and that's official! We gave it 3% for loading.

Really the worst ever?

First of all, in issue 87 you rate *Count Duckula 2* at 3%. You say, "if there's a worse game than this anywhere in the world, we've never seen it. And we'd rather not!" I've got a worse game. *Fruit Machine Simulator*. I seem to remember you giving it 0% and then 2%. It's still worse!

Secondly, I got *Wild West Seymour* on Friday then I completed it on Saturday. Quick or what!

Thirdly, Maryanne should stuff those fluffy bunnies down the loo!

Fourthly, is there a *Dizzy* (mega cool egg) fan club that I could join?

Gaz C
Dartford

1. We changed our minds about Fruit Machine Simulator after seeing Count Duckula 2! We gave FMS 0% because it was a laughably stupid idea, so we gave it a laughably stupid mark. CD2 didn't give us anything to laugh about at all, so we gave it a serious mark!
2. Aren't you the clever one?
3. I mentioned this to Maryanne and she told me what I could do. It also involved toilets.
4. There's no Dizzy fan club that I know of. Not many people worship cooking ingredients.

Qabbalah query

Several months ago I purchased, through a members' club, the game *Qabbalah*. I have managed to locate the instructions for all but this game.

Can anyone help in locating a set of instructions, and send me a good photocopy of them so I may enjoy this game to the full?

P.J. Ward
Westcliff on Sea

How about it – can anyone out there help? Incidentally, as a rule we treat enquiries about instructions with the deepest suspicion. Pirated games are known for not being supplied with printed documentation.

However, since this is a bona fide query, we'll make an exception...

Amiga arguments

I am the momentarily unhappy owner of an Amstrad CPC464. At the moment I am one of very few who do not own an Amiga. Recently my computer has taken three weeks of verbal abuse. It can take no more (and nor can I). Can someone please fill me in on some funny cheek

Family trees

Being a regular reader of your magazine in Australia (about two months late, I might add), I thought you would like to advise your English readers who have written to you from time to time that there are two programs available for the Amstrad CPC 6128 for doing their family ancestral tree.

On can be purchased from: The Church of Jesus Christ of Latter-Day Saints, Gealogical Department, Ancestral File Operations Unit, 50 North East Temple Street, Salt Lake City, Utah 85150, USA. It's called *Personal Ancestral File* (TM/2.0 CP/M version) and must be configured specifically for your machine fromwithin the program itself.

The second is an English one called Genny, and it can be purchased from: David Computer Software, 38 South Parade, Bramhall, Stockport (061 439 4841).

Both of the above are good programs and it is advisable to have two disk drives for automatically saving your files. But in my opinion the Mormon one is better – but it is more complicated at first and must be run under CP/M Plus.

Douglas S Green
Australia

that Amiga owners will not take kindly too?

(Here's a good one – ask them if they're upset that their A500/A500+ is now obsolete! Then stand well back – Ed)

If I don't get help then I might be forced to go out and buy an Amiga. Under these circumstances it would no longer be necessary to buy your magazine. *(Yes it would – you'd have to make sure we weren't slagging you off, wouldn't you? – Ed)*

Seriously, though, I have heard that soon Amstrad games will stop being made. Is there any truth to the rumour? And if I bought an Amiga 500 *(Oh dear – Ed)*, would I be able to use my Amstrad monitor with it?

Also (just in case I keep the Amstrad), where can I get *North and South* and *Supercars* from? If I don't get them I will become sadly deranged and I will buy an Atari 2600.

P.S. I forgot to do some grovelling about how incredibly excellent your magazine is.

OK, here's a few Amiga jibes to try:

1. (For A500/A500+ owners) Bet you wish you'd waited for the A600!

2. (For 512K Amiga owners) Pity so many games need 1Mb, isn't it?

3. The software houses can't wait to move on to console releases, can they?

4. How much did that monitor cost, then?

5. Do the disk drives always take that long?

Yes, you can use your Amstrad monitor with an Amiga, but you'll have to make up a lead specially. If you want to go ahead, drop Richard Fairhurst a line on Technical Forum.

Mmm... not sure where you can get North and South, but Software City are currently advertising Supercars at £3.99. Give them a call on 0902 25304.

You'd have to be sadly deranged to buy an Atari 2600. Frankly, you'd be better off buying a big, steaming pile of donkey-plop. At least you could put it on the garden.



Was your free head cleaner missing? If you live in London, the answer's maybe...

Where's my tape?

OK, where's the free tape head cleaner then? (*AA87*, December 1992) Doubtless all will be revealed...

But of course! Why didn't I think of it before? You left the free tape head cleaner off the front of this month's issue *deliberately*. You want us all to write to you, don't you? (It's called positive attention-seeking in psychological circles.) All right, you win – this time. I've written you a letter. Now where's the free tape head cleaner then?

Seriously, *AA* is a very good magazine. It's informative, well thought-out and well balanced (unlike me!). There's always something for all ages and interests.

Oh yes, one more thing before I venture out into the pouring rain to post this. Any possibility of seeing *The Crypt* on a covertape pleeeeaaaaasssse? (I know it costs money.) It looks like a good game and you've already given the solution and a map...

Jean Benford
London

We're glad you asked us about the head-cleaning tapes. We've tracked down a faulty batch of magazines, you see! Apparently, a bath of around 200 went out without tapes, and it's looking as if they all ended up in the London area. Don't worry, a tape is on its way to you right now.

Thank you for your comments on Amstrad Action. However, Jean, if you like Amstrad Action we're sure you're an extremely well-balanced, intelligent and sensitive persion.

As for The Crypt... well, we might have a word with Incentive, and we might be able to get it for a future covertape... we'll see.

Got it taped... NOT!

In October I purchased my first ever computer – a CPC464 with the CTM 644 colour monitor. I'm having a great time working through the manual, seeing what the computer can do – it's amazing! I decided that I should get a magazine which would complement the CPC464. I browsed through the shelves in the newsagents, eagerly looking at and reading most of the computer magazines there. The it hit me as if it stepped off the shelf and smacked me on the nose... *(they can do that sometimes – I think it's the weight of the covertape – Ed)* Amstrad Action! What a magazine – full of info, tips, type-ins and reviews, all for the CPC user. What value for money, plus a covertape.

On Saturday, I dashed out of bed, got on my bike and cycled as quick as I could to the newsagents, rushed into the shop, scaled the shelves with my eyes... what, no *Amstrad Action*? Ah, but wait, what's that? Yes, a copy of *AA*. As I walked along with my bike trying to read as much of *AA* as I could, I noticed not only a covertape but also a head cleaner. But where was the head cleaner? I know, I thought, I'll write to them nice people at *AA*. Perhaps they could send me one. And in future I think I will subscribe, then I wouldn't have all this trouble...

Also, in issue 85 on the covertape, the game *On the Run* has good graphics, but can anyone tell me where are the flasks? I spend most of the time thrashing forwards, backwards, up and down, but I just can't seem to find any. But the other game, *Link*, is addictive. It's a fight trying to get my mum and dad to put this game down.

AND, in issue number 86 I just can't seem to get to grips with the game *Glider Rider*. I've read the magazine time and time again, but I just can't seem to get off the ground.

Lastly, you've put the *AA85* type-ins on the *AA87* covertape. I sat for ages typing these up myself and now you have put them on to the tape it seems I have wasted my time. I would appreciate it if you could say what type-ins are going to be on your covertapes in future so that I don't waste any more time on them, when I could be exploring my CPC's potential even further.

Michael Channon
Romford

Your head cleaner is on its way, Michael. We don't know where the flasks in On the Run are, either. Perhaps some gameplaying wizard out there can send us in a map? Or perhaps, as I suspect, the flasks are placed randomly each time you load the game. That would be a bit nasty if it was the case.

Yes, it is a bit tough getting off the ground in Glider Rider. What you need to do is go to the top of a slope, then go down it, hitting Up and Fire at the same time. It's something like that,

Celtic carts

In *AA* you always seem to get addresses of English suppliers of Amstrad cartridges and disks. Well now I want to put the record straight. We Scots have computer shops which sell them too. I have found that my local shop, Sprites & Bytes, sell a range of Amstrad disks and cartridges. Their address is: Sprites & Bytes, Upper Unit 21 The Forum, Mercat Centre, Kirkcaldy, Fife, Scotland.

Christopher Swinton
Kirkcaldy

Type-ins rip-off

I am writing to inform you that one of your type-ins is a direct copy from a book. It first appeared in a 1985 book called *Amstrad Games Book*.

Paul Burnell
Havant

Why oh why do people do it? Is it really just to score a free £20? We'd like to think that Amstrad owners belonged to one big family, that they were all genuinely interested in their machines, that everyone was willing to help everyone else out... not that people were in it just to score as much cash as possible.

But if people are going to try to pass off other people's code as their own, so much for that! Perhaps we should drop Type-ins altogether if it's going to be abused? We can't check every single source of type-ins to make sure no-one's code is being ripped off, it's simply not practical.

Thanks Paul, anyway, for pointing that one out to us. And just to spell it out for anyone else, TYPE-INS MUST BE ALL YOUR OWN WORK. Lifting the odd line or two because it's a programming solution you hadn't thought of is one thing, nicking whole wodges of code is another. THE GUILTY PEOPLE KNOW WHO THEY ARE...

If anyone's got any ideas about how to combat this, please, please let us know.

anyway. Failing that, just stab away at all the controls simultaneously as you head down a slope, and you'll soon get the idea.

What type-ins will we put on the covertape? All of them! The idea is that we print them in the mag for people to type in and experiment with, but put them all on the covertape two months later in case they couldn't get them to work.

The point is that you learn lots about BASIC by simply typing in listings – you can't help absorbing the techniques people use. But if you just want the programs, you might as well not bother and simply wait for them to appear on the covertape.

I did it!

I completed *Pakman*! I all all 439 little blobs. The secret is; don't let all the baddies escape from the centre till you've finished the first half. Do I get a prize?

Donna Smith
Fife

No.

Over and out

I am writing this small letter to ask if any of your illustrious readers have come across, or know of, any programs for the CPC6128 that are for radio amateurs.

The programs are for transmitting and receiving morse, RTTY, Amtor and logbooks and such like. Although I have converted a database system for a logbook, it isn't big enough and can't hold all the contacts that I have made around the world.

The programs don't seem to be available in the Mansfield area at all. I have enquired at the local shops, but to no avail. Their only replies are that they have never heard of any.

So do Amstrad NOT do any proggies for us 'hams', or do we all have to change our Amstrads for one of the other models?

Harry M.C. Hall
Mansfield

Well Harry, not only do I not know of any amateur radio programs on the Amstrad, I've never heard of any on ANY machine!

I think your best bet is to get hold of any half-decent database (PowerBase, from Robot PD, is very good – but check out all the PD libraries mentioned in our regular PD section for more) and configure it for your own use.

6128 to Apple Mac!

Yes, it can be done! Copying text files only, that is, from a CPC6128 to any Apple Mac II series machine without using linking modems or linking RS interfaces. How? With great help from CP/M+, a 3.5-inch disk drive and a marvellous program from Moonstone Computing called *2 in 1*. My disk drive was purchased from SD MicroSystems as well as the *2 in 1*.

Want to know more? Then please contact me for full details! (Include a stamped SAE)

Richard Duggan
Hastings

Disk deliberations

I have been reading your magazine with interest over the past few months and have the following comments:

1. Criticisms have been levelled at some of 'your' advertisers for poor service. To redress the balance, I wish to praise MJC Supplies for excellent service. Next-day delivery even on an afternoon order and add to that prompt, efficient staff, and you have a combination that makes postal shopping a pleasure.

2. A few months ago you rightly stated that John Menzies supply Amstrad games on disk via their electronic duplication system. It is worth pointing out that, at my branch at least, only 3.5-inch or 5.25-inch floppies are used.

3. Because of point 2, I am considering buying a 3.5-inch second drive. Any chance of a 'head-to-head' type test feature of those on the market – including which operating system is best?

4. I own a CPC6128 and would like to buy budget games on disk. Why are tapes the norm – surely the cost would be little different?

5. Finally, on a nostalgic note, I was looking at *AA* back numbers from '87/88. It is depressing to note that the software and support that was available then has dwindled to such a large extent. *AA* is probably the only light in an ever-darkening tunnel.

Jonathan Smith
Telford

1. A pat on the back for MJC Supplies, then.

2. Did the staff at John Menzies understand you wanted CPC versions of games? It sounds to me like they might be confusing it with the PC, which runs games on these disk sizes. They really ought to know that the CPC uses 3-inch disks.

3. A 3.5-inch second drive is very useful for 'serious' users, less so for games players. Why? Firstly, I can't believe Menzies are selling Amstrad games on 3.5-inch disks. Secondly, most commercial games are 'protected' and can't be copied on to any disk. Thirdly, a plug-in disk drive on your machine would be a 'B-drive' – many games will only work from an 'A-Drive' – the drive built into your machine. There is an important distinction between the two as far as your machine's operating system is concerned.

4. We were under the impression (until we got your letter) that Menzies could supply much budget software on disk. Tapes are the norm because ALL CPCs will load software from tape (the 6128 has a tape loading socket), but only 6128s can load from disk. Software publishers supply games on tape because with this single format they can sell to the whole of the Amstrad market, not just half of it.

5. We don't see the Amstrad scene as an ever-darkening tunnel! We see it as a great, glittering, multicoloured fountain of light, a glowing, kaleidoscope of... of... yes, well, thanks anyway.

Well done! I knew 2 in 1 was versatile, but I didn't know it could handle Mac disk formats. The telephone number for SD MicroSystems, by the way, is 0462 675106.



Joe Hartley wants to grow a beard just like Rod's (above). Smart fellow.

Mad as a pilchard

Dear Rod, I think you are so fab, and a lot better than the others. Ever since issue 17 I've thought you were fab (*I wasn't IN issue 17, you fatuous gimboid!*), so fab in fact that I've decided to grow a beard and moustache, just like you.

Right. Now I'm going to write what I was going to. What is the best program that supports MIDI? What music is Adam Peters into, because he looks like a funky sort of person? Rod, how long did it take you to grow your beard? Who won the wrestling match? Is Christine Stacey my relation? Is my tea ready? Is the world round? How long is the universe? Are there aliens? Are Spectrums good?

Did you know, if you get an axe, smash the keyboard on the CPC, throw the monitor out of the window, then throw all the bits into sulphuric acid, it doesn't work!

I'm getting fed up now (*YOU'RE getting fed up?!*). I'll probably come round to see you next week. Put the kettle one. See you soon.

Joe Hartley
Longridge

Did you know, Joe, that if someone smashed you with an axe, threw you out of the window then threw you into a vat of sulphuric acid, you wouldn't work either. I suspect you don't work properly in the first place, though.

What's the best MIDI program? You did read the feature, didn't you? Adam likes techno-rave stuff, as you probably gathered from his demo on the covertape.

Finally, don't come round to see us. I'd only be tempted to try this experiment with the window and the sulphuric acid.

Can I write games?

Could you make your own game?

Jonathan Dennis, age 9
Belper

Yes, you can make your own games Jonathan, but it may not be easy. You can produce simple games using the Amstrad's built-in BASIC programming language. The results won't be up to the standard of the games you buy in the shops, but they'll still give you lots of fun. It's also an ideal introduction to programming.

Amscene

All the latest news on the Amstrad scene is right here. If you've got news you think our readers ought to know about, write to: Amscene, Amstrad Action, Beauford Court, 30 Monmouth Street, Bath, Avon BA1 2BW

Robot gears up

Robot PD has something of a reputation. Firstly, for importing some truly spectacular continental software and having one of the most mouth-watering catalogues in the country. Secondly, for sometimes being not hugely quick when responding to orders.

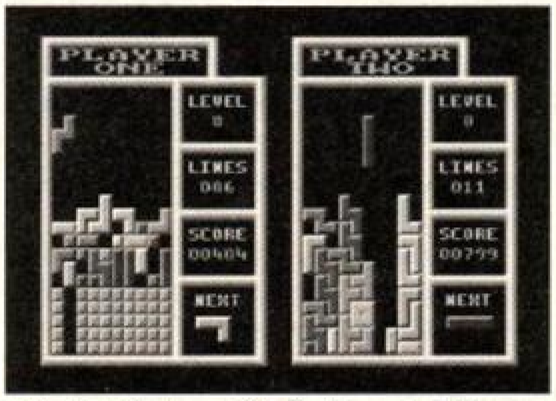
For those that don't know, Robot PD is owned and run by none other than Richard Fairhurst, *Amstrad Action's* technical guru and author of the *Technical Forum* section (plus various other features and articles in the mag).

Richard tells us that he is in the process of totally restructuring his order system, to help him get orders out a little faster. However, in order to achieve this he's had to take the step of 'closing' Robot PD until further notice. All existing orders will be filled, but for the time being, DON'T SEND ANY MORE IN!

Don't worry, though, Robot PD will be back. And we've been assured that when it re-opens it should be the fastest library in the West...



The Amstrad NC100 Notepad is now on sale for an amazing £160 at PC City...



Robot PD is the outfit that imported the super Power Tetris from the continent.

Bag those bargains!

You bargain-hunters out there have been busy again – we've been contacted with more amazing Amstrad deals. It seems you can now get a 6128 Plus (mono only – sorry) for £140, and those nice little NC100s we featured a while back for £160. The 6128 Plus deal is fantastic value for 'serious' CPC users. The people to contact are PC City, on 0703 265344.

Get some help!

For those of you who are totally baffled by computers and computer jargon, Gwelfryn Publications LTD have released a book (more a booklet, actually) called *Can I Help You?* to help you get started and make the most out of your computer. It costs £1 from booksellers or, if you have trouble finding a copy, you can order ir directly from Gwelfryn, at this address: 18b High Street, Newtown, Powys SY16 2NP (0686 627215). The price, when ordering direct, is £1.40.



Gwelfryn Publications have released a booklet for computer novices.

Cheap Plus upgrades!

If you haven't opened up your Plus machine since you got it (after all, you don't want to invalidate the warranty, do you?) you won't know that the circuit boards on both the 464 and the 6128 plusses are identical. The only differences are the bits for the tape or disk system, and the fact that the 464 Plus has only 64K as opposed to the 6128 Plus's 128K.

Now you may have bought a 464 Plus, only to realise later that you would have been better off with a 6128 Plus. Just too bad, or can you do something about it?

Aha! – how about producing an upgrade kit-service? Well, before eyes light up all over the country with the thought of wads of cash being made through upgrade kits, Avatar have beaten you to it.

They are offering a 64K upgrade kit for £15. Or if you are too scared/hamfisted to try it yourself and want them to do it for you, it'll cost £25. Disk drive interfaces will cost around £30 DIY, or £40 if Avatar do the work.

Bargain-hunters should note that if you get both kits together, they'll cost a total of only £40 (a saving of £5), or Avatar will carry out both upgrades for you for a total of £60 (another saving, with the cost of returning the computer chucked in for good measure).

Avatar do stress, however, that you should phone for more details before sending any computers. Contact: AVATAR, 39 Crossfield Road, Leverstock Green, Hemel Hempstead, Herts HP3 8RG (0442 251705).

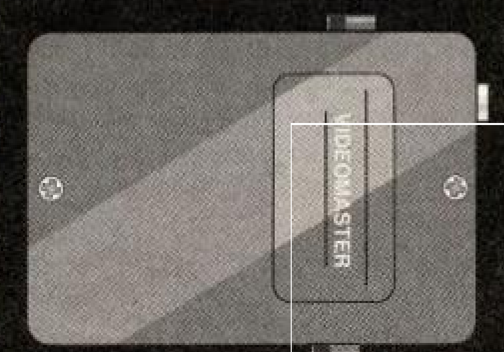


Upgrade your 464 Plus to 128K at home!

Contacting Campursoft

When we did the VideoMaster review (January issue), we didn't print an address for CampurSoft. Here it is: CAMPURSOFT, 16 Slatefield Street, Gallowgate, Glasgow G31 1UA (041 554 4735).

While we're on the subject, if you want some free PD video titling software, just send a disk and SSAE to Campursoft, and they'll oblige you (fnarr fnarr) for absolutely nothing!



Action Zone

Last month we brought you a year in the life of Amstrad Action, this month we tell you what the top people on the industry thought of 1992. PLUS, all the latest CPC game news AND some additions to the Amstrad Action team. Read on...

Well Christmas is over, the New Year is out of the way, only about eleven weeks until you've finished eating up the leftover turkey... time to think about getting stuck into the year ahead.

But not before a little gentle reflection. Last month we took a look at the events of 1992. This month we talk to key industry figures (and *AA* staff) about what happened to them in 1992. Here's what they said...



David Watkins of Alternative says joining the company has taught him a lesson!

David Watkins

(PR manager at Alternative Software. Has an A-level in being cheerful)

- **Best own product**

"*Classic Arcadia* – three classic games that never date (*Space Invaders*, *Muncher* and *Galaxians*). Or *Bangers & Mash* – I like sausages." (*What* sausages?)

- **Best someone else's product**

"I don't know of any other companies producing Amstrad computer games, but if I did it would probably be Activision's *Afterburner*." (Eh?))

- **Best thing that happened in 1992**

"I joined Alternative Software. I was told it would be an education and I must admit it has certainly taught me a lesson!"

- **Most embarrassing thing**

"Being late for an appointment with W.H. Smith's Julian Neal. Or watching five-year-old kids beat me hands down at all our games."

- **Sum up your company's year**

Great. *Popeye 3*, *Play Days*, *Postman Pat*...

- **Sum up your personal year**

1992 gave me a (warped) sense of reality



Steve Denson of SD MicroSystems is a pretty serious sort of chap. He thinks England played like planks in 1992 and is fed up of tractors hogging the road. Oh, and he likes Front-Runner...

Steve Denson

(Long-standing CPC fan and 'serious' user and Front Runner fan)

- **Best own product**

"*Front-Runner*, our new DeskTop program, which gives CPC owners the sort of WIMP front-end that Atari, Amiga and Apple users have been enjoying for years. There have been various attempts at producing this type of system on the CPC before, but *Front-Runner* is the first to actually handle 3.5-inch drives and high-capacity software such as ROMDOS/RAMDOS and MS800."

- **Best someone else's product**

"Being a serious sort of chap who runs a serious software house, I tend to be interested only in serious software, of which there was little released. Although I'm a *Tasword* man, I think the Brunword ROM was probably the cleverest piece of kit produced in the last year or so."

- **Best thing that happened in 1992**

"As I live in carrot-cruncher land (Lincs/Cambs), I

Coming soon, on a CPC near you...



Surely Nigel Mansell's Grand Prix can't be much longer? Pull your finger out, Gremlin!

Christmas is a time for giving, that's what we always say. And all those aunts, uncles and other family hangers-on that clutter up the house at this time of year should have given you plenty of moolah over the festive season to spend on your little plastic pal.

That's right, your CPC is probably feeling most definitely left out after the all the Christmas festivities. Did you offer it any Christmas pud? Did you let it stay up to sing Auld Lang Syne on New Year's Eve? Did you sit it front of the TV to watch the Queen's speech?

Course not. You probably stuffed it in a box under the stairs, didn't you? Or pushed it behind the sofa along with November's *Radio Times* and the soggy dog chews.

Well now's the time to make amends, because despite the general doom and gloom over the Amstrad market, there are some exciting new games releases coming up...

For a start, there's our old friends Titus. Remember *Titus the Fox*? And check out their new full-pricer *Crazy Cars III* in this issue. There's another game in the pipeline, too – *Super Cauldron* (a spin-off from *I* & *II* from Palace). Keep those new games coming, lads!

Talking about full-price releases, what about Gremlin's long overdue Nigel Mansell licence? The whole concept is getting distinctly cobweb-infested by now, but still Gremlin say it's coming out soon. We can hardly wait (bet you we have to, though). Meanwhile, Mansell and his moustache are droning off to the States. Did you see him on *Sports Personality of the Year*? Not sure about the Personality bit at all...

That's not all we can expect from Gremlin,



Good grief, Shoe People is coming out on budget soon! Great news for youngsters.

was getting fed up at being stuck behind convoys of tractors and trucks and so I bought a new car (well, not brand new), a Nissan ZX Turbo, which goes like a rocket. Certainly faster than a ZX Spectrum. I also have to think of my business image, of course, so it was a necessity and not a luxury, you understand."

- **Worst thing that's happened**

"Watching England play like planks in the European Championship. I'm talking about our so-called soccer team here, and the turnip-head of a manager who took the great Gary Lineker off in his last international when he could still have save us. Agh!"

Simon Cobb

(Head of Siren Software and a man who won't stop talking about 3.5-inch drives)

- **Best own product**

"It's difficult to choose between Romdos XL, which is our superb new disk operating system and our own DD-1 disk drive interfaces. Romdos is the only... blah blah... enables you to use... blah... interface..." yes, yes, thank you, Simon. (Groan)

- **Best someone else's product**

"*MicroDesign Plus*. A superb drawing/design package that has been upgraded to turn it into a really professional package – it's published by Campursoft."

- **Best thing that happened in 1992**

"Increased sales and demand for our CPC products, particulary Romdos XL and..." (Oh gawd, here we go again)

- **Most embarrassing thing**

"An *Amstrad Action* reader spotted me at a computer show earlier in the year and recognised me from an article published in *AA* about Siren Software a few years back. He asked me for my autograph, which I gave him. Walking away from me, he turned round to his mate and said, 'I told you we would see some famous people at this show'. I was totally gobsmacked!"

- **Sum up your company's year**

"Excellent year – roll on '93!"

- **Sum up your own year**

"It gets better as I get older."

Richard Eddy

(Codemasters' PR chief and international traveller)

- **Best own product**

"Currently I'm hooked on *Stuntman Seymour*, which features on the *Super Star Seymour* 5-game pack. It's a dead simple, one-screen arcade game that simply oozes playability. In fact, the whole pack is a smart effort. Well chuffed with that one."

- **Best someone else's product**

"What other products? It hasn't exactly been a prolific year for releases on the CPC, has it? Well, apart from *Titus the Fox* (cute), *Blues Brothers* (very blue). Erm, it's the French lot, isn't it? I have a lot of respect for the French CPC games creators. Except whoever published *Paragliding Simulator* (or whatever it was)."

- **Best thing that happened in 1992**

"On the company front it's been great with some of the excellent products I've been working with, especially some of the console products like *Micro Machines* and *The Fantastic Adventures of Dizzy* – both top games. Personally, it's been a chaotic year. I've travelled more times than I have in years – three times to America, lots of times to London, up north, my home in Ludlow, living it up in Leamington Spa and far too much time in Bath's finest eateries. Chaotic, but I've really enjoyed it."

- **Worst thing that happened**

"Developing a taste for red wine. Lots of red wine. Expensive red wine."



Codemasters' Rich Eddy showing Rod Lawton a piece of paper earlier today.

- **Company's year**

"Mad, chaotic, very successful. Challenging, but all very exciting."

- **Personal year**

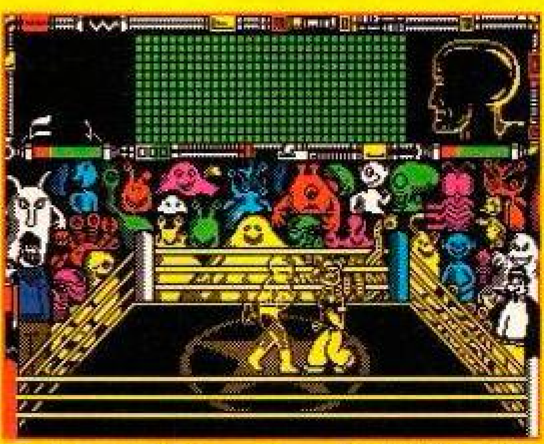
"Fine and dandy. Just don't mention Droitwich! (Oh.)"

Well so much for the industry – what about the AA staff? What did they make of 1992? Here's whout what a strange bunch they all are...

Phil Howard

(Cheat Mode chief and general bon viveur, despite living in Mapperley)

- **Best full-price game** *Lemmings*
- **Best Budget game** *Turbo the Tortoise*
- **Best re-release** *Myth*
- **Worst game** *Narc*
- **Best peripheral** Multiface II
- **Best TV prog** *Absolutely Fabulous*
- **Best film** *Hook*
- **Best video** *JFK*



Don't worry, Popeye 3 won't look like this on the CPC. This is a Speccy screenshot.

Now then, no previews section would be complete without the latest news from Codemasters. Make a note in your diary for January 15th. What? We've gone past it? Blast – that's publishing for you. Well anyway, what was supposed to happen on the 15th was the launch of the latest Codies offering *Superstar Wrestling*. Will it gain two falls and a submission over *WWF*? Will it hold down *American Tag Team Wrestling* for a count of three? Will we ever run out of crap wrestling gags?

Finally, Alternative (remember *Count Duckula II*?) should have another four titles out pretty darned pronto, namely *Playdays* (which we mentioned about an inch-and-a-half to the left), *Kids Pack II*, *Bully's Sporting Darts* and *Popeye III*. We normally expect Alternative to turn out budget releases, but *Playdays* is due to come out at £12.99, which puts it firmly in full-price territory. Can it compete with the all-conquering *Fun School* series on equal terms? Or even the rather excellent *Shoe People* (reviewed last month)?

We don't know much about *Bully's Sporting Darts*, but we have seen *Popeye 3* running on the Spectrum. And we wish we hadn't. Never mind, perhaps the CPC version will be different...

So with all this CPC stuff coming out, get out those 5lb claw hammers and relieve those bulging piggy banks of their contents... it's party time!

though. There's always *The Shoe People*... yes, yes, we reviewed that just a couple of issues ago, we know. The fact is, though, that it's now due to come out on Gremlin's budget label, GBH. We'll come clean – we could have reviewed it a few months ago, but we were waiting for Alternative's *Play Days* so that we could do a head-to-head test. We're still waiting. (How about it, Alternative?)

Entertainment International's budget label Touchdown has been a bit quiet lately. Oh, except for the terrifically excellent *Pipemania* (reviewed this issue). And Gazza's *Soccer's* coming up soon...



Pipemania's the second title out on the new Touchdown label – look out for more.

- **Best LP** *Jimi Hendrix – The Ultimate Experience*
- **Best band** Levellers
- **Coolest person** Paul Merton
- **Biggest Idiot** Norman Lamont
- **Event of the year** Summer



Rod Lawton is a Prisoner nut. He obviously empathises with a man trapped in a strange environment. Except that Rod doesn't know any Information...

Rod Lawton

(AA's departing editor and pioneer of facial fungus cultivation)

- **Best full-price game** *Lemmings*
- **Best budget game** *Turbo the Tortoise*
- **Best re-release** *Lotus Esprit Turbo Challenge*
- **Worst game** *Count Duckula 2*
- **Best serious prog** *PowerPage*
- **Best peripheral** VideoMaster
- **Best TV prog** *Absolutely Fabulous* – by a mile. Oh, and *The Prisoner*
- **Best film** *Silence of the Lambs*

- **Best video** *Abyss*
- **Best LP** *Tubular Bells 2* – ha ha ha (You think I mean it? – get knotted!)
- **Best band** B52s
- **Coolest person** Patrick McGoohan
- **Biggest idiot** George Bush



Amstrad Action has a new staff writer! His name is Simon Forrester, he's about six foot four and can crush walnuts with his bare hands. We call him Sir.

Simon Forrester

(AA's new staff writer, also a programmer, musician and extremely tall fellow)

- **Best full-price game** *Prince of Persia*
- **Best budget game** *Super Seymour Robotcop*
- **Best re-release** *Rick Dangerous*
- **Worst game** *Count Duckula 2*
- **Best serious prog** *Bootracker* (because I wrote it!)
- **Best peripheral** Microstyle's RAMROM
- **Best TV prog** *Red Dwarf*
- **Best film** *Wayne's World*

- **Best video** *Rocky Horror Picture Show*
- **Best LP** *La Sexorsisto Devil Music Vol 1*
- **Best band** White Zombie
- **Coolest person** Kim Thyal
- **Biggest idiot** Axl Rose

Introducing Simon

Err... "Do 200 words on yourself" said Rod as he strode out of the office with his briefcase in his hand, his umbrella under his arm and the rubber chicken peeping out from under his lapel. Right. Fine. Thanks a bunch, Rod...

The reason you haven't read of me earlier in *Amstrad Action* is because I've just joined! I'm 19 years old, stunningly handsomely, gorgeous, intelligent... (*Oi – what's this, a work of fiction?*).

I've had a CPC or about 6 or 7 years now, and have been reading *AA* since issue 10. I'm a coder and a game player (*not forgetting a lazy skyver – ed*), though I enjoy coding more than playing.

My fave band of all time is White Zombie, my fave game is *Elite*, and my fave hamster is Rodney. In my spare time I play electric guitar, and breathe a lot. My humour (*sure you've got the right word there? – ed*) is based around Red Dwarf and Terry Pratchett.

That's about it really (though I need another 95 words!) so I may as well waste some space with this bit! Oh yeah... For those of you who would know, have you noticed the amazing similarity between Rod Lawton and Kim Thyall? (*Kim who? I hope this is flattering – ed*) No? Take a second look. It's creepy. They are identical, except that Rod isn't American (*I once spoke to someone in America on the phone, though*) and his hair's a bit shorter (*used to be longer, mind*), and he doesn't play guitar (*no, but I took violin lessons at school*), but apart from that, it's like they were twins! (*I've got a feeling I'm not going to be happy when I find out who Kim Thyall is...*)

The more the merrier!

There are some things you just don't expect to change, aren't there? Like Mr. Jones down the road always banging his dustbin lid at 6:38am every morning, and the plastic dinosaur always falling into your breakfast bowl when you open a new packet of Puffo-weet. And that strange chap with the beard always peering out at you from the pages of *Amstrad Action* each month.

Well not any more. Rod Lawton (the strange man with the beard) is leaving the magazine to go and produce books on computers. What, he's leaving *Amstrad Action* for ever? Yup. Or rather no, 'cos he's the sort of bloke who likes poking his nose in, really. And he'll probably end up producing books about the CPC anyway. So who's taking his place? The lovely Linda Barker, who knows just as much as he does, though he'll never admit it. Will it make any difference to *AA*? No, except there'll probably be more decent jokes in it...

Seriously, though, *Amstrad Action's* going to carry on producing the same blend of news, views, gossip, technical info, reviews, help, hints and tips it always has done... in fact, we've got plans for making it even better!

For a start, you won't have to look at Rod's ugly mug any more (we can't do much about Mr. Jones's dustbin lid or the plastic dinosaurs, though). And Linda's going to be heading an expanded team to stuff even more value and good advice into the mag. For a start, there's *AA* newie Simon Forrester. Simon is a self-taught programmer who knows the Amstrad inside out (he's the author of acclaimed new music prog *Boo-Tracker* and SD MicroSystems' forth-coming *Front-Runner* WIMP interface). This man's knowledge of the CPC is terrifying. His hair is pretty terrifying, too, but you get used to it.

And there's also Jon Pillar. Jon is a long-time Spectrum devotee, but faced with the relentless advance of 16-bit machines he's decided all Z80-based machines should stick together and he's found room in his heart for the CPC. He's a bit of a genius at getting stuff for covertapes, and is a demon bar-gainer. Look out for some corking covertape games soon.

And, er, that's it! Quite a few changes to absorb, but only to the staff, NOT to the magazine. We've said it before and we'll say it again. Amstrad Action is YOUR magazine, and always will be.



Meet the team – Amstrad Action has some new recruits!

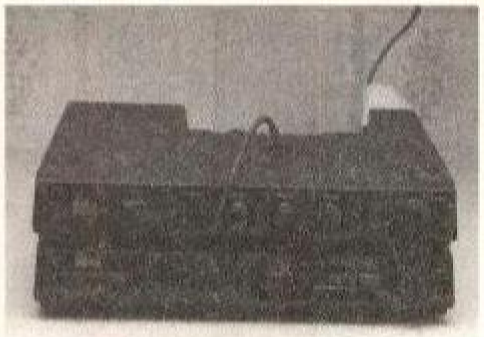
A SMALL SELECTION FROM OUR WAREHOUSE



AMSTRAD MP-1F TV MODULATOR SCART VERSION, FOR CPC464



AMSTRAD MP-2F TV MODULATOR SCART VERSION, FOR CPC664 & 6128



AMSTRAD MP-3 TV TUNER FOR AMSTRAD CTM644 MONITOR AMSTRAD CT-1 CLOCK RADIO

RIBBONS

DMP2000/3000/3160 PKT 2	£3.88 + 0.59 p&p
DMP2000/3000/2160 PKT 10	£18.00 + £3.53 p&p
LC10 MONO PKT 2	£4.70 + 0.59 p&p
LC10 COLOUR PKT 1	£4.23 + 0.59 p&p
LC24 10/LC24200 PKT 2	£6.32 + £1.18 p&p
PCW8256/8512FN	£5.10 + £1.18 p&p
CITIZEN 120D PKT 2	£5.50 + 0.58 p&p
PCW9512 MS PKT 2	£4.72 + £1.18 p&p
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Plastic Cases for CF2 3" disks, box of 10
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Amstrad GX4000 Consoles

Home Entertainment System includes 2 x Paddles, 1 x Burning Rubber Game, 1 x Leads & PSU, etc.

£19.99 + £4.70 p&p

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It's an Art! PART TWO

It's episode two of TIM BLACKBOND's thrilling new series that puts the art into... er... art. Ready? Let's go...!

Last month we looked at the easy bits of any art package – lines, 2D shapes and solid fill. Now you'll all be expecting to go on to the hard stuff, won't you? Well, unfortunately you can't. Why? I'll tell you why, because there isn't any hard stuff. Basically, if you can get the hang of shapes and fill, the rest is just as easy.

Tidiness is next to good taste...

If you'd like to dig up last month's *AA* out from under the bed, you will find that the picture we left off with was a little bit scruffy to say the least. This is where the Zoom function zooms in (ho ho ho! A little artistic joke, there! Sorry) (*You will be – ed*). Most art packages have this feature, although in some cases (*Art Studio* particularly) it is known as Magnify or (for the benefit of those using *SmART 2*) simply Edit.



Zoom does little more than enlarge a selected area of the screen to allow for pixel-perfect editing. A very important option, in fact you'll be needing it for almost every picture you do.

Advanced Art Studio owners have edge over everybody else (again) as they get a choice of three levels of magnification. For extremely close up work, it is best to use x8 magnification (where every pixel is enlarged to the size of a text character). As we are just removing a few overlapping lines, x4 magnification will do nicely. I don't know about you, but x2 magnification is too small. I find that the pointer obscures the bit you need to edit.

Computer simulated graffiti

...And by looking at fig 2, the picture is already looking nearly presentable. It could still do with a bit more work though as a lot of the screen is almost empty. A tree would be a perfect example for going into detail on the Spraycan option. Those of you without a mouse are going to find the spraycan a very painful operation indeed...

The spraycan works just as you would expect. It creates an effect like a can of spray paint (except the computer-generated kind are CFC free!). Some packages have a set spray pattern while others work by placing dots at random places within a circle. It has to be said, the latter looks a lot better, it's just a good job that the majority of packages use this method.

On top of spraycan, there are a selection of other freehand-draw techniques. Paint, for example works just like the spraycan only instead of random dots, it uses user-defined patterns. Patterns (or brushes, as they are known) can be designed to create an endless array of effects. For example, a small, filled circle would draw thick lines, while a small dot would draw lines of the usual thickness. Takes you right back to the *Etch-A-Sketch* days.

Using a brush not entirely unlike the one described above, a small pond can be drawn just by the tree and a lovely cloud.

Advanced Art Studio owners have an extra freehand option: Pen. This uses a set of brushes that are not changeable. Even though it works exactly the same way as Brush does, it does provide a useful bank of ready-made shapes to draw with.

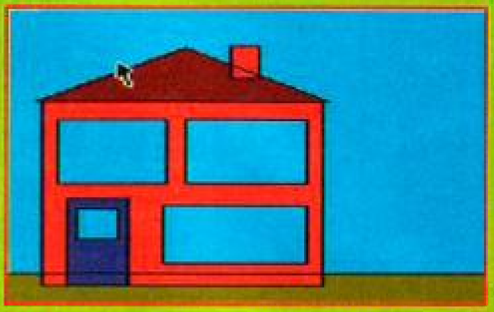
Fill revisited

I know we've already looked at fill. We haven't had a go on this one yet, though. It's another reason why computer art is easier than the paper kind! An object can be filled with a pattern, saving hours of having to draw it yourself. For example, how long do you think it would take you to draw bricks all over the wall, tiles on the roof and put a gravel path on a hand-drawn picture. Twenty minutes? Half an hour? Can't really beat thirty seconds, can it? *Advanced Art Studio* has a brick pattern built in, the others will have to be designed manually in the pattern designer. Even then it doesn't take any more than two minutes!

And we'll call it a day there!

See how just a few options can improve a picture beyond recognition? Next month we'll look into the rest of the functions found on the average art-menu and finish the picture off completely! Until then, if you think you could do better (and let's face it, anybody can) send your artwork to: *World of Art, Amstrad Action, Beauford Court, 30 Monmouth Street, Bath, Avon BA1 2BW.*

Here's one I made earlier...



1 Just a small recap from what we left last month... more or less, anyway. (Last month's house had a bit of an accident...)



2 ...After a bit of ZOOM editing. Much better! All those leftover lines that shouldn't be showing have been taken out.



3 The start of a simple tree. Don't worry. It will get better! (I think it might need a very good tree surgeon – ed)



4 The finished tree, note the use of SPRAYCAN. Also, a pond has been added for added effect.



5 And here's what's left. A bit of pattern fill works wonders for any picture. Almost. We've given the windows nice frames, too.

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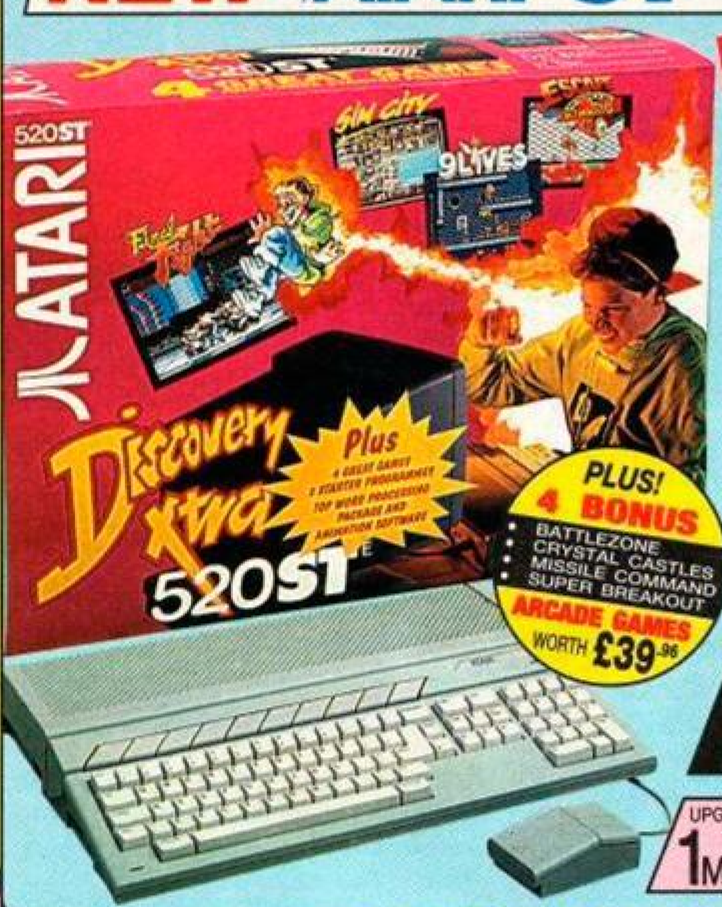
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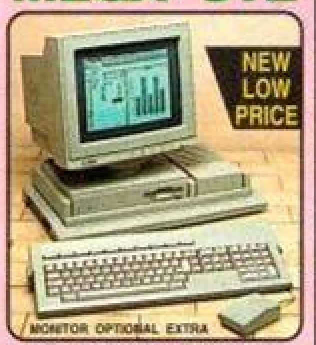
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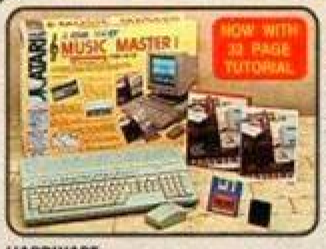
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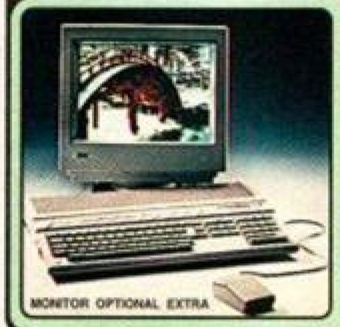
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Technical Forum

Memory Loss

? I have found a way to get around the annoying Memory Full messages while trying to load programs in at low memory addresses, using a rather strange method. It only works on 6128s (you'll see why later). Firstly, when you switch on the computer and type MEMORY &400-1 (or any other low memory address), the computer will respond with Memory Full. Now press CTRL+ENTER together like you would if you were loading cassette software (except that we are leaving out the ITAPE bit). The computer will respond with Bad Command. Don't worry... type MEMORY &400-1 (or whatever) and now the computer accepts it. Why does it change its mind? Are there any other ways to produce the same effect either from BASIC or machine code? Also, what is the purpose of opening dummy files in some game loaders, e.g. OPENOUT"!dummy": MEMORY &3E7: CLOSEOUT?

Shane Kelly
County Derry

! *When the CPC reads from the disk drive, it needs a 2K buffer to store the data between reading it from the drive and giving it to you. (If you're trying to write to the disk drive, it needs another 2K buffer, and so reserves 4K.) The problem you've encountered is that it usually tries to place this buffer below HIMEM (the address you set using MEMORY). If there's not enough room, due to a low memory address, Memory Full is printed.*

So, why does your method work? Well,

Beginners' Questions

Are you a CPC beginner? Are you stuck on the sheer basics of computing? Then this is the spot for you. Write to: Beginners' Questions, Amstrad Action, Beauford Court, 30 Monmouth Street, Bath, Avon BA1 2BW...

The Word is Out

Mr. E.A. Nichols from Oxford is having problems saving lists.

? "I have recently bought a second-hand CPC 464. If I am doing one of the test programs and save it then everything is OK. On the other hand, if I type other things I cannot seem to keep them. This afternoon I typed "Awakenings", pressed ENTER and got Syntax Error. I typed "High Noon" and the same happened. I then typed SAVE "RT" and pressed REC and PLAY as indicated. When Ready appeared on the screen, I rewound the tape and typed RUN"RT" and the ENTER key. "Loading RT block 1" came up on the screen, then the word Ready and nothing else. What am I doing wrong?"

! *Although our Amstrads certainly are wonderful computers, Mr. Nichols, they're not psychic! When you switch on your computer, it doesn't know what you want to do: it goes into the computer's built-in language, which is called BASIC. This is great if you talk to it in BASIC, for writing your own programs, but if you try and do something else – like entering a letter or typing a list – then you need to load a word-processor, or whatever, from tape.*

If you want to type a list, you need to buy a word-processor. There are quite a few available. Protext, which you can buy from most mail order companies (make sure you get the tape version), is especially good. Then you can run the word-processor, enter your text – it won't complain with "Syntax error", because it's expecting you to enter some text – and you can save it when you've finished. When you want to reload it, just load the word-processor, and load the text into that. Hope this helps!

Half an Inch

Menna Owen is confused about disk drives.

? "We have a CPC 6128, and are finding it extremely difficult to find new 3-inch disk games in any of the shops in our area. On the one hand we have been advised that a 3.5-inch drive would enable us to acquire new games. On the other, we have been told that the CPC would still not be compatible with the latest 3.5-inch disk games. This is all extremely confusing!

As I am lost on the computer scene, could you advise me what action to take so as not to disappoint the kids?"

! *The difference between a 3.5-inch disk, and a 3" disk, is only one of shape. Inside the plastic, they both contain the same thing. You can use a blank 3.5-inch disk in any computer with the right size of disk drive. However, it's what's recorded on the disk that makes the difference. Your 6128 can't understand a game for the Amiga, say, even if the disk does fit into your disk drive, because the information is for the Amiga and wouldn't make any sense to the CPC.*

The 3.5-inch drive isn't any use for games, because all CPC games come out on 3-inch disk size only. However, if you do a lot of word-processing, or programming, it's great – you can save onto the 3.5-inch disks, and they're about half the price!

Whoops!

Looks like I made a little boo-boo in the December issue! When I said that your disks are safe from accidental erasure if you move the "write-protect" tab to fill the hole, I got it the wrong way round – they're only safe if you can see through the hole. Thanks to Philip Noel and Jan Balling who pointed this out – I hope this hasn't caused anyone any problems (I'd been to a party the night before, I think I must still have been suffering from the after-effects!).

Mind your language

A text file I read once asserted that "Real Men don't use Pascal". If that's true, then there's an awful lot of, erm, "Fake Men" around, because Pascal seems to me to be the computer equivalent of German: a language I don't understand, but it would be awfully useful if I did...

No.5: Pascal

Everyone on advanced-ish Computer Science courses is taught Pascal. (This is explained by the fact that when it was invented by Professor Niklaus Wirth in 1968, the language was intended to teach principles in programming, and so is highly academic.) Hence there are loads of programs around in the language. Not because anyone likes it, but just because they know it.

Chances area, if everyone were taught both C and Pascal, there'd be a lot more C programs about and far fewer Pascal ones. But then, they're not, are they?

Once you've got used to not being so sloppy as you're used to being in BASIC (variables must be predefined and structure is all-important), Pascal isn't a very difficult language to understand. Of course, there are one or two quirks, such as the language's difficulties with accepting user input.

The problem here is that, after each piece of data (which was previously taken from punched card), Pascal looks at the next one to see whether it's the end of the data list or not. That's all fine and dandy when you're dealing with disk files and such like, but when you're typing at a keyboard, having to type ahead one character becomes annoying and confusing. Thankfully, recent versions of the language have "bodged" this feature to make it usable.

Another problem is that there aren't any strings, as such. You have to make do with an array, each element of which contains an ASCII code for the appropriate position in the string. It works, but so does getting rid of frostbite on your hands by getting them amputated. (*Er, yes, thanks for that insight – ed*)

Possibly the most well-known implementation for PCs is Borland's *Turbo Pascal* (a compiler: Pascal is a compiled language). You can actually get it for the CPC, funnily enough, running under CP/M – and by all accounts it's the best Pascal package on the Amstrad. Or rather, it would be, if Borland still sold it – which they don't.

As a result, you have to resort to lesser systems: this isn't too bad, because a comprehensive (although non-standard) implementation, known as JRT Pascal, is floating around almost every single PD library under the sun. So if you want to sample this quirky, but well-known language, the public domain is your best (and cheapest!) bet.

although the computer has reserved a 2K buffer for reading from the drive when you tell it to RUN something, it stops on learning that you want to RUN" – which is impossible with a disk drive. However, the buffer is still there, at the top of memory (just below the original HIMEM): so when it comes to loading a file in, it can use that buffer instead of requiring lower memory. Opening a dummy file is pretty much the same thing: OPENOUT causes a buffer to be set below the original HIMEM which can be used. The firmware guards against trying to write empty files, so nothing actually appears on the disk.

Lucky Person!

? Recently, I bought the Olivetti JP150 bubble-jet printer for my 6128. It works perfectly when producing text, but my problem is that it isn't Epson-compatible. This means that it's impossible for me to use my huge collection of graphics programs (Stop Press, Advanced Art Studio, GPaint, Pagemaker Plus and PowerPage). Do you have any solution to this problem?

Jan Balling
Denmark

! *No, sorry Jan, there's nothing I can do. Your printer's obviously useless: please send it to the Richard Fairhurst Printer Home, c/o AA... erm, no. The problem isn't insoluble, but it won't be easy. As I don't know what your printer codes actually are, I can't give you a definite solution, but you (or someone good at programming) should be able to alter the programs. You could write an intercept routine, run before the programs, which intercepts all the data going to the printer port (&BDF1 indirection, data in A: corrupts A and BC, carry true if succeeded, false if timed out), and converts it into the appropriate format. Alternatively, you could dive straight into the code: this will be easier with PowerPage, GPaint and Pagemaker Plus (which have separately loaded print routines) than the others, where the code is embedded into the program. If you don't feel confident, try and enlist a friendly genius to help – good luck!*

That Book Again

? Having a reasonably good grasp of BASIC, I would like to progress further. AA has been a great help, but the problem is getting hold of the 464 firmware manual (Soft 158) which will give me all the ROM subroutines I need to know. I was hoping an "in the know" mag like AA may be able to help!

Stuart Priestley
Bradford

! *You really want Soft 968, which is the firmware guide for all CPCs and includes details on the disk system too. However, since it's out of print, it won't be easy to find. A substitute is available, produced by Bob Taylor and Thomas Defoe (8 Maze Green Road, Bishop's Stortford, Herts. CM23 2PJ), "The Firmware Guide" misses a huge amount of info, while giving you extra info on system variables that you shouldn't use, but it's the best there is at the moment (£7.95).*

MIDI Magic

? 1. Where can I get hold of a first joystick with a socket at the back for a second joystick?
2. I own a 464 but do not have a disk drive – could you tell me the best one for my money and where to get it?
3. How do you convert a tape to disk and vice versa, even if it is a multiload?
4. What does "Pt" stand for, and can it be replaced by a "£" as shown in the manual?
5. Can you use a tape head cleaner kit with the datacorder?
6. Is there a way to connect a GX4000 console to a CTM644?
7. What is a MIDI interface and where can I get one from? Can I use a Yamaha PSR-3 with it? What music software is needed?
8. Which is the best drum machine for my 464?

C. Radclyffe
Torquay

! *1. Don't bother: the only ones are Amstrad JYs, and they're abysmal. Buy a joystick splitter from OJ Software instead (0257 421915) and two joysticks.*
2. Siren Software sell a 3.5-inch drive for £160 (061 724 7572).
3. By using a special tape-to-disk program (although it won't cope with multiloads). Try Soft-Lok (STS Software, 081 317 3536) or the Bonzo series (Avatar, 0442 251705). And vice versa, disk-to-tape? Are you serious?
4. Peseta (the Spanish currency, worth about 0.0000001 pence. Almost.). To get a £ sign, try SYMBOL AFTER 163: SYMBOL 163,60,102,96,248,96,102,254,0 .
5. Yes, although I'm not convinced they make any difference.
6. It is possible, although you won't get any stereo sound output (as the CTM 644 has no speakers). CPS (081 317 3536) can make you the lead.
7. A MIDI interface lets you control MIDI instruments (e.g. keyboards) from your CPC. Check out our special in issue 85 for more details and info on sequencing software. As for your keyboard, if it has MIDI sockets on the back, it will work.
8. Far and away the best drum machine is a proper MIDI one controlled through a MIDI interface – issue one of our sister magazine Future Music contained a review of them.

Taking the lead

? Why did Amstrad put such short leads between the 6128 keyboard and monitor? It's all right if you use the keyboard directly in front of the monitor, but I want to use one of these computer desks with a moveable shelf in the front for your keyboard. Can I make up my own leads? Can you help me?

Carl Forster
Bath

! *I can do better than that, Carl! You can actuall buy extension leads for the Amstrad ready-made. Call MJC Supplies on 0462 481166, or OJ Software on 0257 421915.*

review MicroDesign Page Printer

Goldmark Systems, 51 Comet Road, Hatfield, Hertfordshire AL10 0SY ● Requires 128K, MicroDesign

MicroDesign is an excellent DTP package, but what do you do if you want the best possible printed output? You get hold of MicroDesign Page Printer, that's what...

Reviewer sits in front of his CPC, watching as a picture emerges from his trusty but battered Epson printer. Trembling horribly, reviewer thinks of the dilemma he's in.

This is a printer dump program. It produces excellent quality results. It's aimed at a limited market. It's rather slow. Five months ago, reviewer sat in front of a printer dump program (Colourdump 3 from MJC Supplies), which produced excellent quality results. It was aimed at a limited market. It was rather slow. Reviewer awarded it 70% – and got slammed by MJC Supplies.

Reviewer wonders what he's going to say about this one. Yes, it is slow: 25 minutes to print a quality "strip" format file, making over an hour and a half for a really high-resolution four-strip page. Goldmark suggests going to brew yourself a cup of coffee, but reviewer reckons you'd need a pretty hefty cup of coffee while a whole page was printed (especially at high quality) and would probably die of a caffeine overdose. Just as well reviewer doesn't drink coffee. Reviewer understands that such programs are always going to be slow, but he knows very well that nifty programming (for example, not bothering to "print" an empty line, but simply feeding onto the next line) could make it a whole lot faster. Reviewer said something similar last time. Reviewer still got his head ripped off.

Reviewer stares in awe at the results. If an Epson 9-pin can print that well, he thinks, perhaps there's no need to save up for that HP Deskjet he saw advertised. Reviewer wishes he had a 24-pin printer to see what the results in 24-pin mode are. If the demo print on the back of the instructions is a 24-pin print-out – and Goldmark would be crazy not to copy a 24-pin high quality print-out there, thinks reviewer cynically – then he is astonished at how good it is.

Of course, he remembers, it is aimed at a limited market. For people who produce pages with MicroDesign and need really professional quality output, amongst whom reviewer does not number himself (he uses his own DTP package, and now thinks that a rewrite of its print routine might be advisable), this program is highly recommended. Reviewer thinks perhaps it would be nice if it let you print smaller size .DR files, rather than simply full pages – after all, users may want to print out really smart disk labels – but recognises that full pages are going to be the most common use anyway. Reviewer reckons that Goldmark could make themselves a good few bob by adapting it to cope with Stop Press and PowerPage format pages, neither of which have particularly wonderful print modes, but he knows that at the moment, the program is aimed at MicroDesign users, and it's not on to review it as anything else. Reviewer would only complain about non-support of other formats if the program was advertised just as any old "Page Printer".

Reviewer thinks that the presentation and error-trapping are greatly improved over the other printer dump he reviewed, although still not perfect (reviewer managed to crash the program by pressing ESC, which does cause problems with protected BASIC loaders), and that the idea of playing the Blue Danube to relieve the boredom of printing is a pretty smart one. He thinks that the percentage complete gauge at the bottom of the screen is rather neat, too, or would be if it worked: still, reviewer reasons, at least Goldmark have the honesty to point this out in the instructions, and promise free upgrades. Reviewer thinks that a self-calibrating clock would be wonderful, and would give the program 100% just for that, but editor tells him to stop being stupid and asks him if it's any wonder AA gets complaints about his reviews if they're all like this.

This is a good program is good that does what it sets out to do well, but it's not perfect, and to give it an exceptionally high score simply wouldn't be accurate. But then neither would it be accurate to give it an exceptionally bad score, because it IS a good program. If you're not in a hurry, the results are excellent.

VERDICT

GOOD NEWS
- **Excellent results**
- **Friendly (plays the Blue Danube)**

BAD NEWS
- **Could be faster...!**

Excellent output quality, but do screen dump programs really have to be this darned slow?

RATING 82%

TOP TIPS

Fractionally useful

I use my CPC mainly as a word processor with Protext. I'm passing this little tip on in case there are any readers who might have the same problem I had: how to get fractions like "half" to print.

If you want to print "half", follow this sequence: CTRL and X together, followed by T, then 1, CTRL-X, T, /, CTRL-X, S, 2, CTRL-X, and finally S... of course, to print any other fraction simply change the 1 and 2 to different numbers.

David Ferguson
County Down

Copy right

A friend of mine recently got a 464 and wanted to use some type-ins. They were fine until he came across the line a$=COPYCHR$(#0). Of course, as the 464 doesn't have COPYCHR$, this was a bit of a problem. However, I came up with a routine which works identically:

```
10 FOR n=&30 TO &37: READ a$
20 POKE n,VAL("&"+a$): NEXT
30 DATA CD,60,BB,32,37,00,C9,00
```

Now all you need to do, instead of the above command, is CALL &BB60: a$=CHR$(PEEK(&37)). Easy!

By the way, I got some demos from Presto PD and I was amazed. I can already program in machine code, but how should I go about getting into demo programming?

Matthew Dewhirst
Slough

AA: Just read the special in this very issue... (coincidences, eh folks?)

In control

While reading through my firmware manual the other day, I noticed the call TXT GET CONTROLS at &BBB1.

For those who don't know about it, I'll describe it. When you call &BBB1, it returns the address of the "control code table" in HL. This table comprises three entries for every code from 0 to 31 (in order), with the first byte being the number of parameters taken by the code (up to 9), and the next two being the address (between &4000 and &BFFF) of the code's routine. On entry to this routine, A contains the last character in the parameter buffer, B contains the length of the buffer (which includes the control code), and HL points to the start of the buffer. Your routine can corrupt AF, BC, DE and HL.

This might sound really dull, but think of the possibilities! For example, you could make the computer, instead of generating that annoying "bleep" (character 7), play a digitised "oi" sound which you could store in the extra 64K of the 6128. Or you could use character 27 (which isn't used otherwise) in a utility!

Chris Jones
Aldershot

Loose talk

Homegrown software –what's it all about?

Public Domain is fun, but up until now we have neglected the nice chaps (and chapesses) who run 'homegrown' software libraries. Homegrown software is just like PD (except in most cases it is of higher quality), but is just a tad more expensive, not to mention subject to copyright (i.e. you can't pass copies around or include them in a PD library).

Pipeline Software, run by Robin Gilbert, has the slogan 'A crashing wave on the beach of originality'. Hmm, catchy!

Not only does he supply software (split up into arcade, adventures, strategy, compilations and utilities categories), but there is also a wide range of assembly language tutorials and firmware guides (amounting to a total of 388 pages!), all from as little as £3 each, going to a maximum price of £4!

Robin Gilbert is situated at: 9 Brynglas Terrace, Bridgend, Mid Glamorgan, South Wales CF33 6AG.

Yorkie closes down

Yorkie PD, run by Daniel York, has been forced to close due to pressures of GCSE's. No word has been said about it re-opening after the exams. Terrible shame...

Extreme decisions...

Robert Masson, the man behind the forthcoming fanzine Extreme, has closed it down before the advent of the first issue.

The reason for this somewhat severe decision is the fact that the team he assembled dropped out, taking all the clip art with them! However, he has now got together a new band of merry CPC folk and is renaming the magazine 'Progware'.

The new name doesn't have the same ring as 'Extreme' if you ask me.

"It's a new library, Bryan, and it looks like a good one!"

Who's heard of Derek Hyland? (*I'm sure I know that name – ed*) Somebody must have as he appears to be Ireland's most ardent CPC user. To labour this point, Derek has just opened what is apparently Ireland's FIRST Public Domain library, Amsof PD.

He's already sent me a total of three disks containing material not yet seen by myself. So the question on the world's lips: "Is he a lamer?". No, I don't think so: The catalogue looks very promising!

PD Public Image

The public domain is producing some seriously good software these days. TIM BLACKBOND rounds up the latest releases, news, views and PD gossip...

GAME

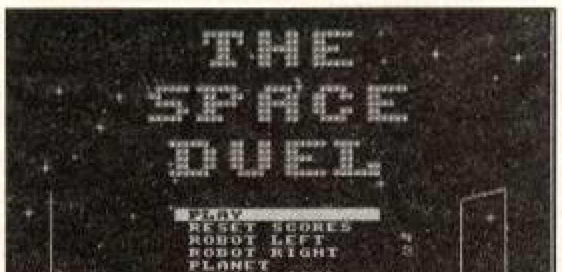
The Space Duel

By Andreas Stroiczek • Amsof PD Disk APG3

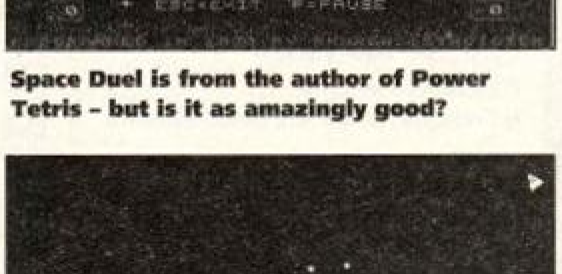
For those who can be bothered to remember, Andreas Stroiczek is the brilliant programmer behind *Power Tetris*, reviewed last month. It is such a shame that *The Space Duel* doesn't quite live up to the excellence of *Power Tetris*.

The idea of the game is based around the old concept of shooting your opponent (another player is needed) until only one remains. Except, the gameplay is rather like of *Thrust*. Well, *Thrust* was a good enough game, so why isn't *The Space Duel*?

A number of reasons. Firstly, each player's craft looks almost exactly like the other's (in fact there is no difference whatsoever when travelling across the screen at light speed). Secondly, when you, shoot a missile (or indeed let off a blazing attack of several) they stay on the screen, making it only to easy to be killed by your own fire.



Space Duel is from the author of Power Tetris – but is it as amazingly good?



Er, no, it's not, actually. It's something like two-player Thrust but frustrating and dull.

There is an option to have the battle set in deep space or just above the surface of a planet. The only difference is that gravity affects the ship on the planet (i.e. it gets dragged down to the surface).

If you enjoy a game that will last the best part of a decade, you'd be well advise to leave *Space Duel* well

22%

GAME

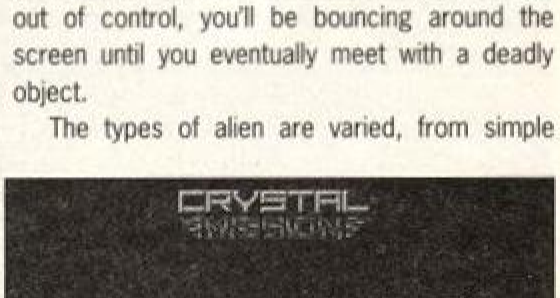
Crystal Mission

By Andreas Stroiczek • Amsof PD Disk APG 3

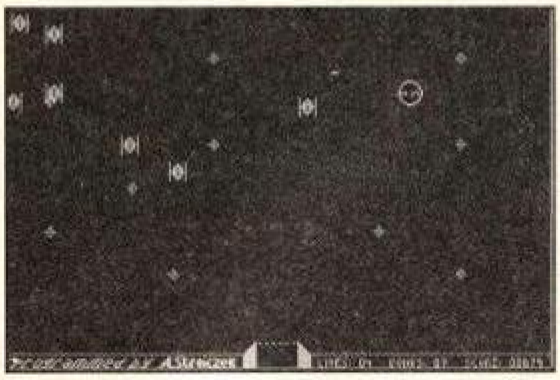
Moving from one extreme to the other, *Crystal Mission* (also by Mr. Stroiczek) is really twiffick! Unlike *The Space Duel*, *Crystal Mission* is a one-player game, and one in which you must manoeuvre a spherical droid around a variety of screens collecting a number of crystals. Once collected, the door at the bottom of the screen with open, allowing you to get to the next level.

Ho ho ho! It's the usual case of 'Sounds pretty easy to me' syndrome. As per usual, there are a smattering of aliens to contend with and not to mention mines scattered about the screens to catch out those with slow reflexes. This is made just ever-so-slightly more difficult by the fact that your droid moves as if he's on ice. If you let it get out of control, you'll be bouncing around the screen until you eventually meet with a deadly object.

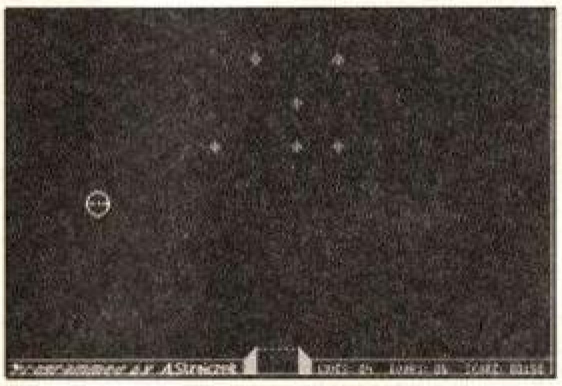
The types of alien are varied, from simple



This is brilliant! Dodge the nasties and collect the crystals to finish eadh level...



You are the little round thing, tip right. The purple things are the crystals you need.



No nasties for the moment... grab all those crystals then nip out of the portal (bottom).

drones that wander around minding their own business to these annoying cross-shaped gets that have an amazing knack of barricading you in with electric fences.

Fortunately, you are not unarmed. You, have an infinite number of bullets that can be shot in eight diections and five smart bombs that kill every nasty on the screen. It is worth noting however that shooting or bombing an alien does not kill it. It simply returns to its starting position and waits a few seconds before starting off again.

There are a total of 30 levels, starting off with a couple of easy starter stages and gradually getting to the point of anarchy. The only flaw is the lack of a password system. Having to go through each level again when you die can get quite tedious. Just a small glitch, nothing to really get stressed about – Quality with a capital Q, U, A, L, I, T and Y.

92%

Zap 'T' Balls codes!

From someone who has completed *Zap 'T' Balls* (i.e. me), here are just a few level codes to get you going, should you find yourself not up to the standard of those who are just born to be good at games (ahem).

Incidentally, it is recommended that you fork out money for the *Advanced Edition*. Disappointed is not a word that can be associated with such a game.

Level	Code	Level Identifier	Difficulty
01	???	Look Carefully!	Easy
02		OOUUPPS! Another Ball	Easy
03	EGS	Get 'Em Out!	Easy
04		They Are Trapped. Go And Get 'Em	Medium
05	GCS	The Death Chain	Easy
06		The Bomb	Medium
07	DJH	A Timing Problem	Easy
08		It Is Bumpy Popcorn	Medium
09	BSC	Attack Of The Aztecs	Hard
10		The Big Chase	Medium
11	BMC	Save Your Path	Hard
12		The New York Rusting Corp.	Medium
13	GPA	Golden Gate Bridge	Hard
14		This Time, You Are Trapped!	Medium
15	OAS	Who Dares Go First?	Hard
16		The Big Bumps But Do Not Worry	Easy
17	CBS	Trapped In A Pyramid	Medium
18		Someone Has To Enter The Turf First	Medium
19	GOS	The Ball Trap	Easy
20		The Shop – Buy Whatever You Want!	Hard
21	MTI	The Small Zap	Hard
22		Your Head Is The Achilles Heel	Medium

I shall refrain from giving you the codes for the last few levels. Sorry an' all but what's the point of a game if you take the challenge out of it? There are another eight to go through – and they are not easy!

UTILITY

Toolbox

By E. Pfarr • Sheepsoft
PD Disk 52

Ahoy disk drive owners! Do you find that having to go through the tedious CP/M operating system when wanting to organise your disk a pain in the neck? *NewSweep* allows you to set the file status of disks quickly and easily, but not quite as quick or easily as *Toolbox*.

The main menu offers five options: Examine Directory, Modify File Status, Format Disk, Copy Disk and Exit To Basic. The first option, Examine Directory just displays every file on the disk, including those in different user areas and hidden system files.

Modify Filestatus has a display exactly like Examine Directory, except that you can rename files, hide them, set the user area and delete them to name just a few of the exciting features available.

Both Copy and Format disk, incidentally, do just as they suggest at a reasonable speed. The only problem is that this package works only with drive A. For those with second drives wanting to transfer data from A to B (or vice versa) will need to find another package.

If you have only one drive, though, there are no worries whatsoever: *Toolbox* is an excellent utility, being fast, user friendly and useful. Smashing.

84%

Watchcat with Lynn Folds-Cardboard

These days, there are more and more programs in the public domain that should not be there. If you have owned your computer for over five years, you may remember Cascade Software's appalling collection of Fifty 'Great' Games On One Cassette. All but three of these programs were written in BASIC, they could be easily broken into and were of quite low quality (with a few exceptions, I can remember being addicted to *Evasive Action*, using the popular ever-growing snake concept, and *Dragona Maze*).

Now a lot of games from this collection have found their way into a number of libraries, even after the trouble in Caroline Lamb's hayday with a certain author's's infamous 'Change-the-copyright-to-my-name-and-sell-it' technique. For example, *Nemesis IV* and *Draughts* are available from your freindly neighbourhood library.

Other once-commercial games to nip into the Domain are *Roland Takes A Running Jump* and *Slatch!* from the old *Amstrad Computer User* (Eek – a swearword!) cassettes.

More recently, *Karl's Treasure Hunt*, believe it or not, used to be a commercial game from Software Projects (the people who brought us *Manic Miner*). Despite its plugging in an international, top quality magazine (i.e. this one), the Software Projects guys have said nothing on the matter.

The big question is, do the software houses care? I don't think so. With the games scene on the CPC slowly dying out we may soon see a time when you can get *Final Fight* exclusively from Dingely-Dong PD.

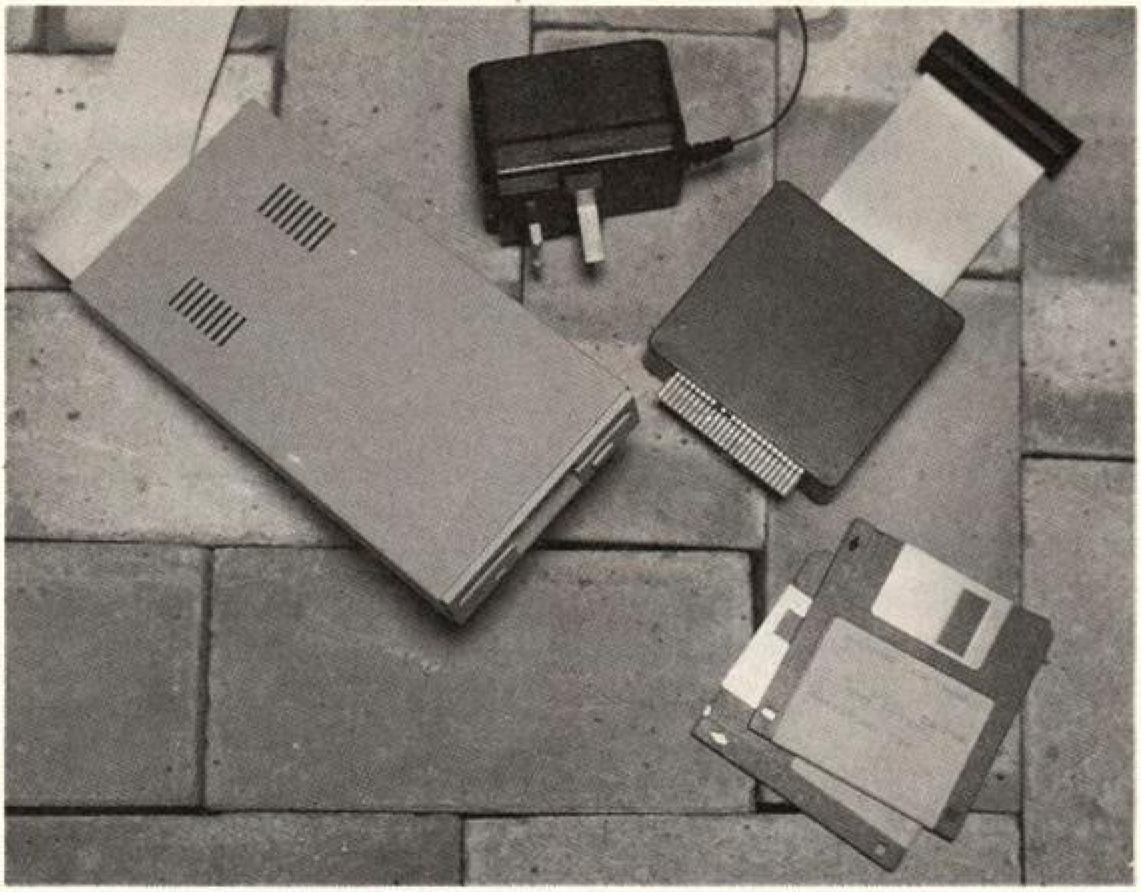
I mean think about it, it's a thought! However with games such as *Power Tetris* and *Zap T' Balls*, Public Domain may even take over the commercial scene. I think it already has.

(Er, just one word of warning to PD librarians everywhere. If a software house decided to move in on a PD library distributing its stuff, the library owner will be hit for more cash than they could ever repay in a lifetime. Just thought I'd mention that – ed.)

Next month

As you may have noticed, there is no Rogues Gallery this issue. Fear not, though, Personality-Lovers, it shalt returneth next month, along with a review of the forthcoming fanzine, *Extreme* (hopefully), together with all the usual regulars.

Thanks for the letters, I will find space for them as soon as I can, but keep them coming! You know the address!



One

A 3.5-inch disk drive is now one of the most popular CPC peripherals. But to achieve their full potential – 800K storage per disk – these drives need special Disk Operating System software. Richard Fairhurst explains what's involved, and why some packages are better than others...

The most popular peripheral available for the CPC today is undoubtedly a second 3.5-inch disk drive. After all, with supplies of 3-inch disks scarce and expensive, it makes sense to hedge your bets and save money too by going for the well-established 3.5-inch size. But what else are they useful for? Well, here's a few examples:

● Bulletin boards

If you've ever owned a modem, you'll have used a bulletin board (BBS). These are user bases on a phone line that can be accessed by anyone and everyone, leaving messages, grabbing free software, and being linked to every other modem-owning CPC user in the country.

As you can probably guess, though, these things aren't easy to set up. If you plan to do it on a CPC, you'll NEED a high capacity drive. The simple fact is that with hundreds of messages, programs, and data, you'll have no chance trying to store everything on two normal drives (giving 360K maximum). Rumour has it that a certain Chris Smith, who runs WACCI BBS, has several drives as a B-drive, with a special switching wotsit. He has several Mb on his machine!

Incidentally, Richard 'Available from Robot PD'

There are lots to choose from...

ROMDOS XL

ROM £19.99 ● Siren Software ● 061 724 7572

ROMDOS XL is a development of the most well-known second drive operating system, ROMDOS, with a whole host of extra utilities glued onto the ROM. A file copier, a directory editor... too good to miss?

Two things made the original ROMDOS so popular: the ability to deal with disks as one large 800K disk, rather than two 400K sides (which ROMDOS XL still does admirably) and the fact that it automatically detected formats. Here lies a problem. It doesn't do that any more. Or rather, it does... partially. It can differentiate between D1, D10, D2 and D20 formats (which are variants on the 700-800K disk theme), but place a normal format disk in and it complains loudly. This is a real shame, because you're only likely to use *one* of the four ROMDOS XL formats (two ROMDOS formats, D40 and D80, have disappeared), but compatibility problems will mean that you'll probably need to use normal format B: disks with certain programs. That's not to say that you can't use normal format disks – you can, but like other DOSses, you have to switch the extended formats off first.

The disk utilities, accessed by IXL, include a fairly standard copier – like most of the others reviewed here, it won't copy with over-long files nor those that are located in strange places in memory. At present, there are quite a few bugs in this part of the program, but Simon Cobb is at pains to point out that they will be removed shortly.

The other major utility is a directory editor, which includes the very useful facility to set files to Read Only, System (invisible) and other such attributes. However, one problem is that it only edits the first 64 files on a disk – not much use when all the formats support at least 128 files.

ROMDOS XL isn't a bad program by any means, but it's not as good it could be. There are a few worryingly rough edges that need to be sorted, and the loss of automatic detection of normal formats eliminates one of its major advantages.

VERDICT 73%

RAMDOS

Disk £9.99 ● Siren Software ● 061 724 7572

In a way, RAMDOS is ROMDOS's little brother. It sits in RAM and eats up a small chunk of memory (unless you have 128K, when it can relocate itself in the extra memory). This means that it's compatible with precious few programs, which limits its effectiveness a great deal. As it's not an "XL" version, either, for file copying you'll need to buy Maxidos (Avatar, 0442 251705) on top of this. So if you're dead set on going with the RAMDOS/ROMDOS family, then, ROMDOS XL works out cheaper.

VERDICT 53%

400K/S

Free with SD Micros drives ● SD Microsystems ● PO Box 24, Holbeach, Lincs PE12 7JF

Steve Denson, proprietor of SD Micros, suggests that the greatest virtue of 400K/S (400K per side) is its simplicity. He has a point – all it does is set up the B-drive to the 400K format, and disappear. (Incidentally, the format is the same as S-DOS and ROMDOS D80 formats – not present on ROMDOS XL! – which makes for easy compatibility). The program also comes with a simple file copier and disk formatter, which works well enough. The two main problems with 400K/S are that of convenience (as with all disk-based systems, many people will find it annoying having to load the program manually after every reset) and that relating to use under CP/M, or rather, non-use – the two just don't get on.

A fine little DOS for light use, but for serious

e big DOS

Fairhurst is thinking of setting up a board called Real World BBS, though more news on that elsewhere.

● Backing up software

Be it your software or someone else's (naughty naughty), you can effectively fit four disk sides worth of software on to one high capacity disk. This would be handy for DTP pages, massive text files, or even disk archives. There is software around to let you save one normal disk onto a high capacity disk, fitting several archives onto one disk (one package we've seen offers incredible compression as well, allowing even more archives per disk). Not only will this save money on expensive 3-inch disks, it provides a very easy method of backing up important stuff.

● Saving money!

If you're one of those people who doesn't enjoy paying about £25 for ten disks, GET A 3.5-inch DRIVE. You'll pick up a box of ten (DSDD) disks for around a fiver, and as you'll store so much more on them, you'll have soon made a saving equal to the cost of a high capacity drive.

● Compatibility

With a 3.5-inch drive you now have much greater compatibility with IBM PCs and compatibles – important if you use one at work, or you want to send your novel off to a major publisher (you should be so lucky!). You need the right software, but once you've got that and a 3.5-inch drive that's ALL you need.

● Availability

All Amstrad owners must have noticed by now that 3-inch disks are getting hard to come by – never mind expensive to buy. The days are gone when you could just pop into town and buy a box of disks when you needed one. On the other hand, you can get 3.5-inch disks all over the place, and they're just getting cheaper and cheaper...

What you need to know

Choosing a disk drive isn't too difficult – choosing the software is. Each drive comes with its own DOS – Disk Operating System – as well as a possible host of extra goodies. And naturally, each manufacturer claims that their DOS is the best. This is where the *AA* comparison chart comes in!

But why do you need a DOS anyway? Well, to be honest, you don't. If you just use your external 3.5-inch drive as a normal B-drive, you can fit 178K on each disk – or 356K if you have a side switch. A DOS, though, enables you to use twice that amount of space on each disk, which, considering the modest outlay on the DOS itself, will work out at a considerable saving.

One question sure to confuse prospective buyers is that of switches. At times it seems as if rival manufacturers have been close to a shoot-out over whether you need a side switch or not, and as for the ABBA switch – well, that's a different kettle of fish entirely. Perhaps an impartial observer might throw some light on the situation... anyone? No? Oh well, I'll have to explain it myself then.

Side to side

Like a 3-inch disk, a 3.5-inch disk has two sides as well. Unlike 3-inch disks, though, 3.5-inch disks aren't "flippy". This means that you don't access the other side by turning the disk over, but rather by sending a signal to the disk drive.

Here's where the confusion starts. Some

...but which DOS is best?

usage, you'll probably want to upgrade to a more powerful DOS.

VERDICT 56%

MS800

Disk £9.95 ● Avatar 0442 251705 ● GVL Microform ● 0772 701248 ● ROM £9.95 ● Avatar 0442 251705

MS800 works on a different principle to every other DOS. The idea is that RUNning a program on an MS800 disk sets up the format for that disk. (The claim that this program takes up no storage space on the disk is a bit naughty – all programs take up storage space. MS800 just fools the computer into thinking that it hasn't done!) As with other disk-based systems, loading the initialisation program can become a bit tiresome after every reset. A ROM version is available which cuts out half the aggro (having to type RUN"DISC"), but you still have to wait for it to load the initialisation program. This, of course, is a real pain should you want to change format in the middle of writing a program, as you'd have to save your program, run the initialisation program, and reload your program again.

MS800 offers six formats, the last of which is the most interesting: it splits the disk into four, so that any program which copes with standard B-drives can access two of these areas. The other two are available for use with co-operative programs like BASIC. A pretty smart idea, except that you might find mixing (say) Stop Press files and BASIC programs on the same disk confusing. It's a matter of personal taste, really.

A copier and a formatter are included, as is a utility that lets some awkward programs which don't usually co-operate with large format DOSses work. It lets you use large format disks in the A-drive, which is good news, too. Altogether not a bad little DOS at all. However, it does suffer the general inconvenience of disk-based systems.

VERDICT 65%

S-DOS

ROM £12.95 ● STS Software 5c Robert Street, Plumstead, London SE18

S-DOS, as a ROM-based DOS, automatically sets the computer up after every reset. Like ROMDOS XL, you can turn the extended format off if you want to use normal format disks. Unlike ROMDOS XL, it also lets you use the extended format in the A-drive, and turn the extended format back on again without having to reset.

The copying utility is the best of any of the DOSses reviewed, as although the normal copier handles the same range of programs as any other, a special copier is included to transfer any file from one drive to another. In general, the "disk utilities" section is extremely well-presented, bug-free and easy to use.

Like MS800, S-DOS also provides a useful command to let you run awkward programs which don't usually co-operate with large format DOSses.

Other extra commands include one to load a file at any address in memory, a BASIC program de-protector and even a header reader. Finally, the format is compatible with ROMDOS (not XL) and 400K/S.

S-DOS isn't perfect. As with all the other DOSses, it doesn't auto-detect between normal and extended formats. The fact that you are restricted to two 400K sides, rather than a large 800K side a la ROMDOS XL, is a shame. But it's friendly, easy to use, and provides the best overall range of features offered by any of the DOSses.

VERDICT 82%

DOSses – notably the ROMDOS/RAMDOS family – will send this signal themselves. Instead of offering you two sides of 400K each, they combine the two into what seems like one big side of 800K. However, most won't, and simply let you access each side of 400K. (See "K accessible at once" in the chart). To get at the other side, you flip a "side switch" – so, in fact, it's nothing to do with "inferior drives", but different DOSses.

Whether it's an advantage not to bother with a side-switch is debatable. Sure, it's nice to have one side of 800K – it makes for better organisation. However, many people find it easier to handle two large sides rather than one extremely large disk, especially when the catalogue threatens to go scrolling off the bottom of the screen. And, with a side switch, you have the advantage that you can use two 178K sides if needs be: very useful for programs that steadfastly refuse to acknowledge any kind of DOS.

It can't B!

Oh yes, compatibility. This is always a problem, as many programs have trouble with even a standard drive B-drive. Trying to run one with extended directories and much more space to play about with confuses many utilities (for example, *Advanced Art Studio*). Before you buy a DOS, remember that you are bound to make compromises in the interests of compatibility.

This is where the ABBA switch comes in. What this does is swap the drives around, so that your A: drive is the 3.5-inch drive and the B: drive the 3-inch drive. This is great if you have a DOS that can read large-format disks in drive A. Of course, some don't...

ROM for improvement

Convenience, of course, is of major importance. You will probably want to switch on and be able to use your B-drive straight away. This is fine if you have a ROM-based DOS which initialises at every reset, but if your DOS is disk-based, it can become a real pain to have to type |B:RUN"DISC" and wait for a program to load after every reset. This is labelled "initialisation" in the chart.

Finally, although it may seem obvious, if you buy a ROM-based DOS you need a ROM-box. If you don't already have one, consider buying one – it's worth it just to be able to access *Protext* on ROM! Avatar now sell the deservedly popular ROMBO for the very reasonable price of £25 (0442 251705). Several other excellent programs can also be obtained in ROM form.

So, to be honest, finding the perfect DOS is a bit of a tall order! However, a glance at our reviews of each DOS and the comparison table should see you right...

Back-up beefs

Life with a high capacity drive isn't always a bed of roses, though, as the odds are you won't be able to transfer your commercial software onto a high capacity drive, and you certainly won't be able to *buy* it on high capacity.

Most commercial software is heavily protected, to prevent people copying it willy-nilly and either distributing it to their mates or even – en extreme circumstances – selling it themselves. Commercial software is designed specifically NOT to be copyable. Which also means it can't be transferred, even to another disk. It's a pain in the neck, but we're stuck with it.

And why can't you buy Amstrad software on 3.5-inch disk? Basically, because not enough Amstrad owners have them. It would not be worth a software publisher's while producing 3.5-inch disk versions of programs. Especially since many are now shying away from producing disk versions of their programs at all...

Although 3.5-inch drives are now very popular amongst CPC owners, unless just about *everyone* had one, it's hard to imagine publishers taking it seriously.

However, all is not lost. No, you can't buy CPC software on 3.5-inch disk, and no, you can't copy much commercial software *on to* 3.5-inch disk either. But...

That's right, there may be a way after all. There are a number of special utilities around (see the main article) which do allow you to transfer stuff over, and run it on a high capacity 3.5-inch drive...

The law is distinctly vague here. Most people accept a user's legitimate desire to make a back-up of important – and expensive – software. But backing-up is not the same as making another copy! And the letter of the law is that it is still illegal to transfer commercial software on to another disk, be it 3.5-inch or otherwise.

Switch on!

There are two extremely useful gadgets on the market which may be just what a 3.5-inch drive owner needs (depending on their software and set-up). These are a side-switch (lets you access both sides of a disk) and an ABBA switch (Swaps A and B-drives):

SIDE SWITCH £3.00 kit, £5.95 plug-in version ● Avatar ● 0442 251705

ABBA SWITCH £12.95 ● Avatar ● 0442 241705

COMPARISON TABLE

	ROMDOS XL	RAMDOS	S-DOS	400K/S	MS800	MS800
Supplied on	ROM	disk	ROM	disk	ROM	disk
K accessible at once	796	796	396	396	396	396
K accessible (max)	796	796	792	792	792	792
Initialisation	auto	manual	auto	manual	auto/manual	manual
Large format in drive A	no	no	yes	no	yes	yes
CP/M compatibility	yes	yes	yes	no	yes	yes
Runs awkward programs?	no	no	yes	no	yes	yes
VERDICT	73%	53%	82%	56%	65%	65%

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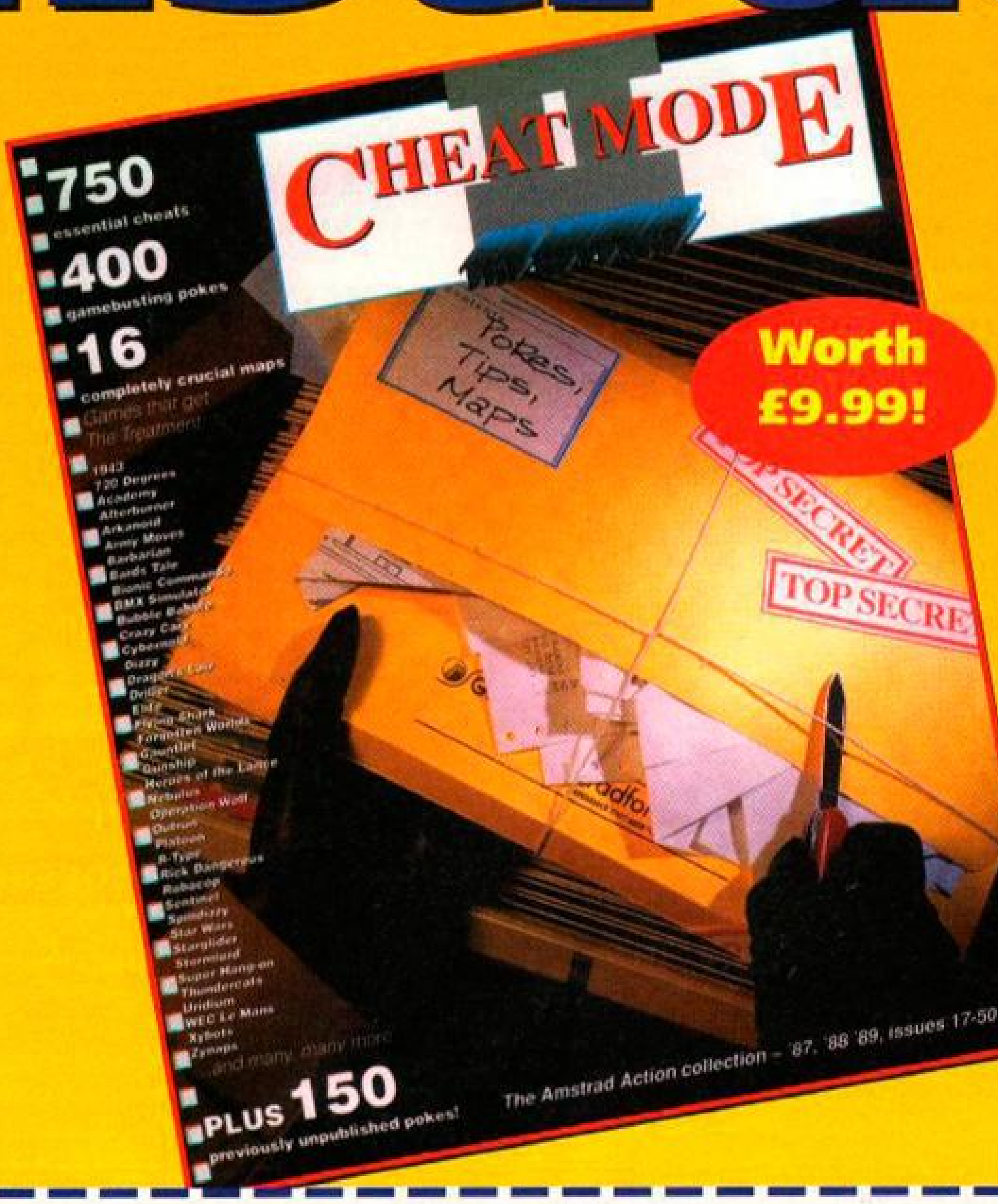
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The Out

The latest CPC demos will leave you gobsmacked. They get the CPC doing things it simply shouldn't be able to do! But who writes demos, why do they never give their real names, and why do they have a vocabulary all their own? Richard Fairhurst investigates the European CPC revolution...



This 3D object is manipulated at speeds that should be impossible on the CPC.

Flick through a typical *AA* and the world of the CPC looks very cosy. Software houses selling games for £10 a time, PD libraries dispensing cheap and simple programs for a few pennies,



As with most demos, Face Hugger starts with a scrolly and loads of raster bars.

and happy Amstrad owners everywhere going along with this. Dig a little deeper, though, and you'll find that what seems right and proper superficially is quite different underneath. All over Europe, the CPC underground is challenging the state of play in the CPC market as we know it.

Ironically, most of the interesting work is being done in France and Germany. Britain, the home of the CPC, is very much the poor sister of the Continental countries in terms of a thriving underground. However, that may not be for much longer...

So what IS a demo?

Demos, in their underground sense, are programs designed to push back the frontiers of CPC coding, and show just how good the machine (and the programmer!) is. Ranging from short 10K routines to epic productions taking up a whole disk, demos are now produced by teams of CPC users all over Europe. Each demo-writer has a pseudonym – demo 'teams' have their own names too. With a few teams setting up in Britain, the signs are that it's taking off over here, too.

The earliest demos, which appeared around 1988, were simple affairs with perhaps a simple scrolling message, some music (usually ripped out of a game: after all, few people can compose a decent tune, let alone code sound routines for

Straight from the horse's mouth

If there's one person who knows about demo-writing, it's Longshot – leader of Logon System (the French group whose demos are the envy of everyone) and himself a real mean coder. Your correspondent hoped to jet over to Paris and interview him. Rod wasn't so keen, but (courtesy of the Royal Mail and La Poste) here's the interview, anyway:

Why did you start writing demos?
"Because when I was working at Ubi Soft's castle, the C64 owners said that the CPC wasn't capable of running a demo."

Are demos difficult to write?
"The first demos, in 1988, were very easy and quick to develop, but in 1992 they have a very high technical standard."

What advice would you give to someone hoping to write demos?
"The best advice is to work a lot, be patient and persevere."

What equipment and programs do you need?
"You must have a good assembler (I use DAMS, which is the best CPC utility [only available in France, unfortunately!]), an art package (Advanced Art Studio is the standard), 128k of RAM, and a hardware reset button."

In your opinion, who are the best demo-writers?
"The best demo-writers are those who keep detail and perfection in mind. The technical, graphical and audio quality of a demo are judged by the public, and it's they who decide."



The man himself – Longshot

What about British coders?
"I've not seen many demos from Britain because British people are not used to demos. Most coders are French and German guys."

What are your favourite demos?
"My favourite demo is 5KKB demo 3. I also like KKB First and the Ultimate Megademo by Face Hugger (although it lacks polish somewhat)."

Do you think that writing demos is easier than writing games, utilities etc.?
"Definitely! It's much more difficult to write a game than a demo. Not many demo-writers are able to code a game because it demands more work, time and co-operation within a team. However, demo-writers are at home writing utilities (for example, graphics and sound utilities) because they use them for their demos."

Do you intend to stay on the CPC?
"For some time yet, yes!"

Can you give us any info about Logon System?
"Overflow is a member of Logon, like Duncan and LBB (ex-5KB). There are 13 of us now! We won't have a project for a long time because we all have too much work!"

er Limits

How to become a demo coder

1 There's only one choice for a language to write demos in, and that's machine code. No other language gives you quite the same speed, which is paramount in demo coding: you want to get as many impressive things done in as little processor time as possible. So, the first thing you need is a working knowledge of machine code and a decent assembler (*Maxam, not Devpac!*). If you have a tape-only system, now's the time to upgrade: waiting five minutes for your source code to load every time that you want to "tweak" the routines would try the patience of a saint.

2 The next thing to do is find out how the popular effects in demos work. Simply looking at a few can be helpful. And, if observation doesn't do the trick, take a peek at the demo code. (Warning: many demo coders protect their work against unscrupulous ripping-off, making innocent examination impossible.) What may seem like a mind-bogglingly difficult idea can often prove to be surprisingly easy to code.

3 To get you started, a disk containing details of how to write your own demos – the nitty-gritty we didn't have space for in this article – is available. It includes helpful instructions, a few example demos, and even real demo code for you to play about with! You can get a copy from Artificial Intelligence, Robot PD, Dartsma PD and probably quite a few other libraries too (see Public Image for addresses).



Aaah... coffee and keyboards. It brings back such sweet memories...

Demo-speak

Demo-writing has its own jargon, made worse by the fact that most demo-writers don't speak English as their first language! Exclusive to AA, here's the demo-coders' dictionary...

Freak: any demo-writer, cracker or generally someone heavily involved with the CPC.

Hardware effect: a smart effect produced by playing around with the control chips inside your CPC (its hardware!). Examples include overscan and rasters.

Lamer: this is not something you want to be called. The ultimate insult, often used to describe someone dismissive with ideas above their station.

Overscan: a technique that allows graphics to fill the whole monitor, including where the border usually sits. Easy to do but looks great.

Raster: another hardware trick, the raster principle lets you mix loads of colours and modes on screen at the same time. The idea is that you synchronise the program to the electron beam that displays the picture on the monitor, and change inks or mode when it reaches a particular point, with the change being shown on that part of the screen instantly. Responsible for many of the best effects in demos.

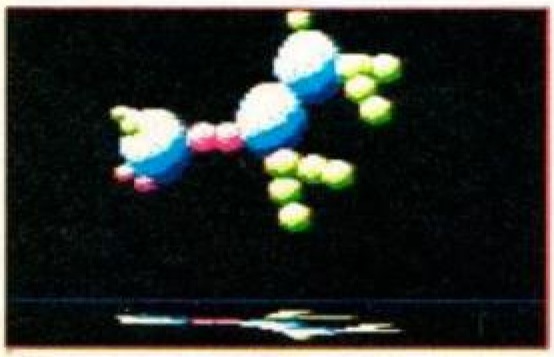
Scroll: every demo should have one. A message that whizzes across the screen (usually from left to right, but upwards is also common), in the same vein as those red light displays you see in shop windows – except a lot more spectacular. Gives the programmer a chance to say hi to his mates ("the greetings") and generally make his views known. Great fun!

Software effect: the opposite to a hardware effect, produced by messing around with the contents of your CPC's memory (RAM). Examples include small scrolls and shape-manipulation (e.g. 3D) routines.

a computer), and a picture. Over the years, though, the standard of demos has become progressively higher. Today's demos include graphics taking up the whole monitor- no border!, 27 colours on screen at once, fast-moving graphics with huge, complex scrolls, and perhaps even specially-written music. These are things the machine simply shouldn't be able to do! And yet the latest generation of CPC coders are doing it...

Undoubtedly, the last few years has seen a gaint leap in quality in what's emerged from Europe's demo-writers. It's interesting, though, that these amazing new programming techniques are coming from the computing 'underground', not software publishers.

KKB's *First Demo*, released in 1990, was a hugely impressive demo from a German duo: the amount of things happening on screen at once impressed everyone who saw it. In early 1991, Cadjo Clan's *Terrific Demo* (by another German twosome) arrived with some excellent coding and



More image manipulation, this time a dog that walks whilst it's spinning – wow!



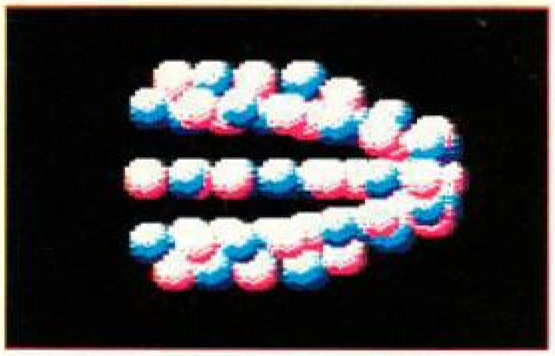
A wavy blanket of balls (?) is something you only usually see on a 16-bit.

fantastic music, but its thunder was largely stolen by the release shortly afterwards of the simply-named *The Demo*, by French mega-group Logon System. This orgy of coding talent, taking up a whole disk, took the underground by storm with its uniformly high quality: it remains THE classic CPC demo. Rumours of a follow-up are, sadly, unfounded.

More recent productions have included the *Paradise Demo* (by French group Paradox) and excellent megademos by German coders BSC and Alien. One demo to appear in late 1992 was *The Ultimate Megademo* by German coder Face Hugger (author of *Power Tetris*), the only demo he ever intends to produce – and it's a good one. Stunning solid 3D shape rotation marks this demo out from others: in addition, one part of the demo based on *Lemmings* adds a touch of humour to the program (and makes you wonder just how much better the game would have been in MODE 1...)

So what's to come on the demo scene? Ace French coder Overflow, of Logon System, is working on his fourth demo. As his third demo was one of the best ever released, this one is eagerly anticipated, and the previews don't disappoint! Unix (including Danish, Swiss and French members!) promises a revolutionary megademo called *Unique Demo*. As Unix includes a line-up of renowned coders, this is one to look out for.

Meanwhile, on this side of the Channel, British group Discovery promises its first productions in 1993... perhaps it's asking a bit much to expect Continental-style slickness, but the results should be interesting, at least!



The motion here is a little hard to describe – the shape kind of swims along...

Although you may not be ready to commit yourself to a high-profile life of demo-coding, it's worth taking a look at what other people have come up with: after all, that's what demos are for. The easiest way is to write to a few PD libraries: since Robot PD imported the first demos into Britain, almost every other library has caught on and many now boast impressive lists of demos (Dartsma, Domain, Presto and Robot are good places to look). As many librarians have built up extensive European contacts, you can be sure to get a taste of what's around.

Or why not go the whole hog and swap demos with other people yourself? A (free!) advert in *AA* Small Ads, asking for like-minded readers to swap demos and PD with (either in Britain or on the Continent), is a great way to get yourself the latest demos. What's more, it's also a good way of becoming a part of the whole underground scene, picking up on news and gossip, seeing Continental fanzines (the quality of French and German disk fanzines, in particular, is incredible – almost like demos in themselves!). Just make sure you speak the language...

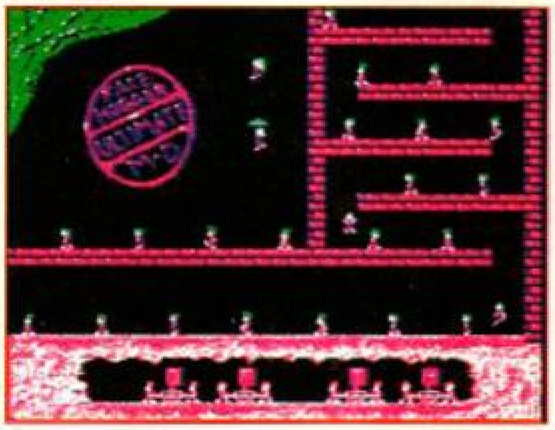
Cracking under pressure

But demo-writing is intertwined with another, much shadier, underground activity – cracking. Crackers live on the edge: arrests by the police (particularly in Germany) are not unknown, and feuds between games programmers and crackers have been noted. To some, they're heroes: to others, the scum of the earth. What makes them so notorious?

Crackers take original games – either on tape or disk – strip off all the protection, and rearrange them into a couple of easily-copyable disk files. This process is known as "cracking". As software houses' protections get better and better, so do the crackers'. There's hardly a game released on the CPC that hasn't been cracked! An intro is usually placed on the front of each game, which is a short demo to give details on the game and whoever cracked it.

These 'cracks' are then illegally copied between swappers, who hoard thousands (no exaggeration) of cracked games in their collection. Very few of these games actually get more than a cursory glance, but if they decide that they do like the game in question, no way are they going to buy the original, legal version...

Cracking has always been a controversial area. The crackers would argue that with software prices so high (most CPCs on the Continent



If only the real Lemmings had been as beautiful as this demo version ...

International lore

The CPC underground is alive and kicking all over Europe. Here's a run-down of what's going down where...

France

The French scene is the most active in Europe at present. Two factors encourage it: a magazine (*Amstrad Cent Pour Cent*) which takes an active interest in demos, and the wonderful Minitel system. Minitel is an electronic communication system owned by almost every household in France, and an ideal way for demo-coders to debate the latest productions, swap coding tips, and generally get to know each other. Some important groups...

GPA: a well-established French group, also with one German member (BMC). Led by Syntax Error, the group contains some impressive coding talents, but their promised megademo ("Cuddly Demo") has been a long time in the pipeline and still hasn't appeared. Something to look forward to...!

Logon System: the ultimate demo-group. Founded by Longshot, it includes the best French coders and artists. Since the historic *The Demo*, further releases have been sporadic (and usually limited to one or two of the coders), but a Logon demo is always a major event. They write an advanced coding column for Amstrad Cent Pour Cent, too.

Germany

Although Germany's technical superiority over France has slipped back recently, there's still a lot of interesting stuff going on. As well as a whole host of top demos, games and utilities have emerged from Germany recently. A few groups to note from Germany are:

BENG!: a very large and varied group, including demo-writers, swappers and crackers. Officially a "European" group (Beng stands for Bad European News Group), most of its members are German, including Crown and Alien.

Cadjo Clan: although only composed of two people (Thriller and Weee!), the Clan are an important group. Their *Terrific Demo* was one of the best of recent years, and Weee! is accepted as the best musician on the CPC.

GCS!: another abbreviation (Godless Cracking Satans – good grief!), GCS! includes BSC, writer of the music utility *Soundtrakker*, Weee! (once again!), and Elmsoft (Austrian, and coder of the great *Pang* clone *Zap't'Balls* as well as a host of smart demos).

Britain

Unfortunately, we don't yet have as active an underground as France or Germany. However, in the last year there has been a growth in interest in demo-writing: these are the most well-known British groups...

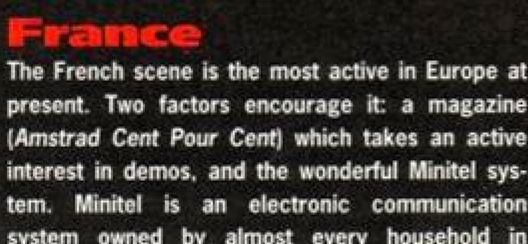
Bitmap Vandals: the quality of their first demo (*Demoware*) was highly ropey, it must be said! However, their team has undergone a shake-up recently, and their next release is awaited with curiousity...

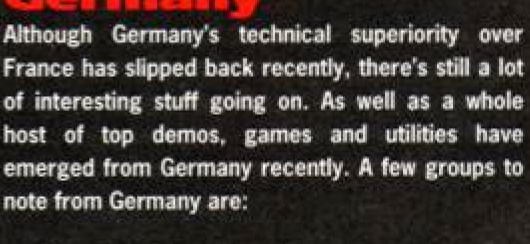
Conspiracy: previously a much larger group, its two members (artist Pixel and coder Doc) have come up with a few good demos recently.

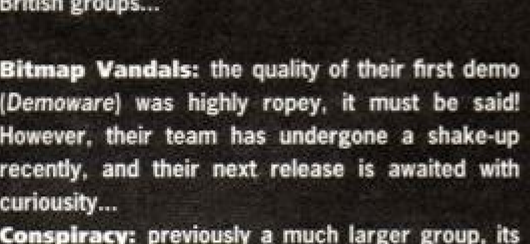
Discovery: this recently established group is made up of Boo the Ghost, XceL, Wild Thang and CRTC. Although no demos have been released yet, the results could be interesting...

The Equalizing Crew: The Equalizor is Britain's only cracker, whose intros are written by Doctor Fegg. This pair have the (dubious?) honour of being well up with the best European crackers...

STS: is it a software house? Is it a coding group? Is it another three-letter abbreviation? Well, all three really, if you must know. STS is made up of the following: Hangman, Roo-Dolph and Ratz (whose latest demo is a candidate for the best British demo ever).









Though it looks strange in colour, the animation here has to be seen to be believed.

are disk-based), they can't afford to buy the games they want. Besides, in most cases, they wouldn't want the game anyway. So an illegal copy won't make any difference, when all it's going to do is sit in a disk collection simply as an "achievement" (the prestige of being the first to crack a game, particularly one with a tricky protection system, is enormous). They would point out the beneficial effects of cracks, such as infinite lives options and bug fixes, whilst suggesting – and it's hard to disagree – that if the cracking scene died, a lot of good coding talent would be lost to the CPC forever.

Opponents of cracking, though, see it as little more than theft. As some people who could buy a game will turn to the (free) cracked version as an alternative, if available, this loses the programmers money for their work. Although in these days of salaried programmers in development houses this is often not strictly true, the principle remains: depriving people of just rewards for their hard work isn't on, and for many this argument outweighs any other.

As the majority of games come from Britain, whereas most crackers live across the Channel, this makes anti-piracy enforcement tricky and consequently very limited. The software houses seem resigned to the fact that their games will always be cracked – all they can do is put better protection systems on to stop Joe Public from copying the games easily.

Can cracking be justified?

When is cracking not cracking? When it's tape-to-disk transfer – depending on who you ask. After all, disk loading is infinitely preferable to tape loading, as it's so much faster: and if you have a collection of tape games (or if your favourite games, such as most budget ones, are available on tape only), you're likely to want to transfer them to disk. Of course, when they're on disk in a series of files, they're easily copyable, like a crack...

The software houses would rather you didn't copy from tape to disk. They'd prefer you to buy the original disk version, or stick to loading from tape. But there are a number of programs out there designed to copy your tapes to disk: the cult *Bonzo* suite, of course, as well as STS's *Soft-Lok* (for Speedlock protections) and *Dizzy Utility* (which transfers the popular, usually tape-only *Dizzy* games to disk).

On the hardware front, the Multiface II's main purpose in life is to copy tape games to disk. And although this might be seen as a harmless little piece of kit, as you need it plugged in to re-run the game, there are PD programs to get around this...

More obviously useful for cracking – something picked up by many French crackers – is Siren Software's *Hackit* (or its French incarnation, *Le Hacker!*), a cartridge that plugs into the back of your CPC and lets you mess around with the contents of memory, save it out to disk, etc. A simple crack with this would involve loading the game, interrupting with *Hackit*, finding (by trial and error) where you should CALL to start the game, and saving it out again. Obviously, with multi-load games, things get much more tricky: *Lemmings* proved a difficult game to crack, but in the end, the protection succumbed.

Disk copiers are available in varying degrees of sophistication. You'd be hard-pushed to find a game that can be copied with *Disckit*, free with 6128s, but French program *Discology* can cope with everything except the dreaded 8K sectors (and, in an interesting twist of fate, *Discology* itself has been cracked and widely copied...).

Spin-off benefits

Demos take an immense amount of programming expertise. If only that expertise was transferred to more constructive uses...

Well, after making their name as a demo-coder, some people add more strings to their bow by programming in other areas – while remaining eager demo-writers. Two of the best games in recent years, *Xyphoes Fantasy* (which, unfortunately, never reached Britain) and *Zap't'Balls* were programmed by demo-writers. Utilities have always been a strong point, too – the commercial music utility *Soundtrakker* was written by demo-writer BSC, with many PD utilities (such as B-ASIC, the revolutionary program which uses the Plus's extra features) being programmed by demo-writers too.

In fact, as major software houses and professional programmers leave the Amstrad scene, they're being replaced by a whole new generation of self-taught coders who know the machine inside out – better even than its designers. The Amstrad's best *commercial* years may be gone, but maybe its best *software* is yet to come...?

Cracking-speak

Just when you thought you'd got to grips with the demo jargon, along comes another lot to learn: think of the instant street-cred you'll gain!

8K sectors: possibly the best method of disK protection employed by software houses. The CPC can read program code stored on an "8K sector" (normal CPC disk sectors are only 0.5K large), but it's physically incapable of writing it to another disk in the same way. An effective protection, safe against anything except a good cracker or an Amiga with a 3-inch drive attached!

Intro: the mini-demo loaded up before a crack, to say who cracked it, give details about the game, and say a few hellos to fellow crackers.

Loader: either another name for an intro (which loads the crack into memory), or (on a game) the program that loads the rest of the game – which the aspiring header needs to get his head around before he can go on to the program code.

Speedlock: engineered by Dave Looker (who puts *AA's* covertapes together), and possibly the most common protection. Tape Speedlocks come in a variety of flavours, being constantly updated to beat the crackers (and the tape-to-disk utilities). There are also disk Speedlocks, using the infamous 8k sectors. These are very nasty.

Meet the teams!

The traditional form of meeting is a "copy party", where the latest cracks and demos are brought along and copied by everyone present. However, these are less popular now, as large-scale meetings take over – the ultimate of which are the Euro-Meetings, featuring the best coders from all over Europe.

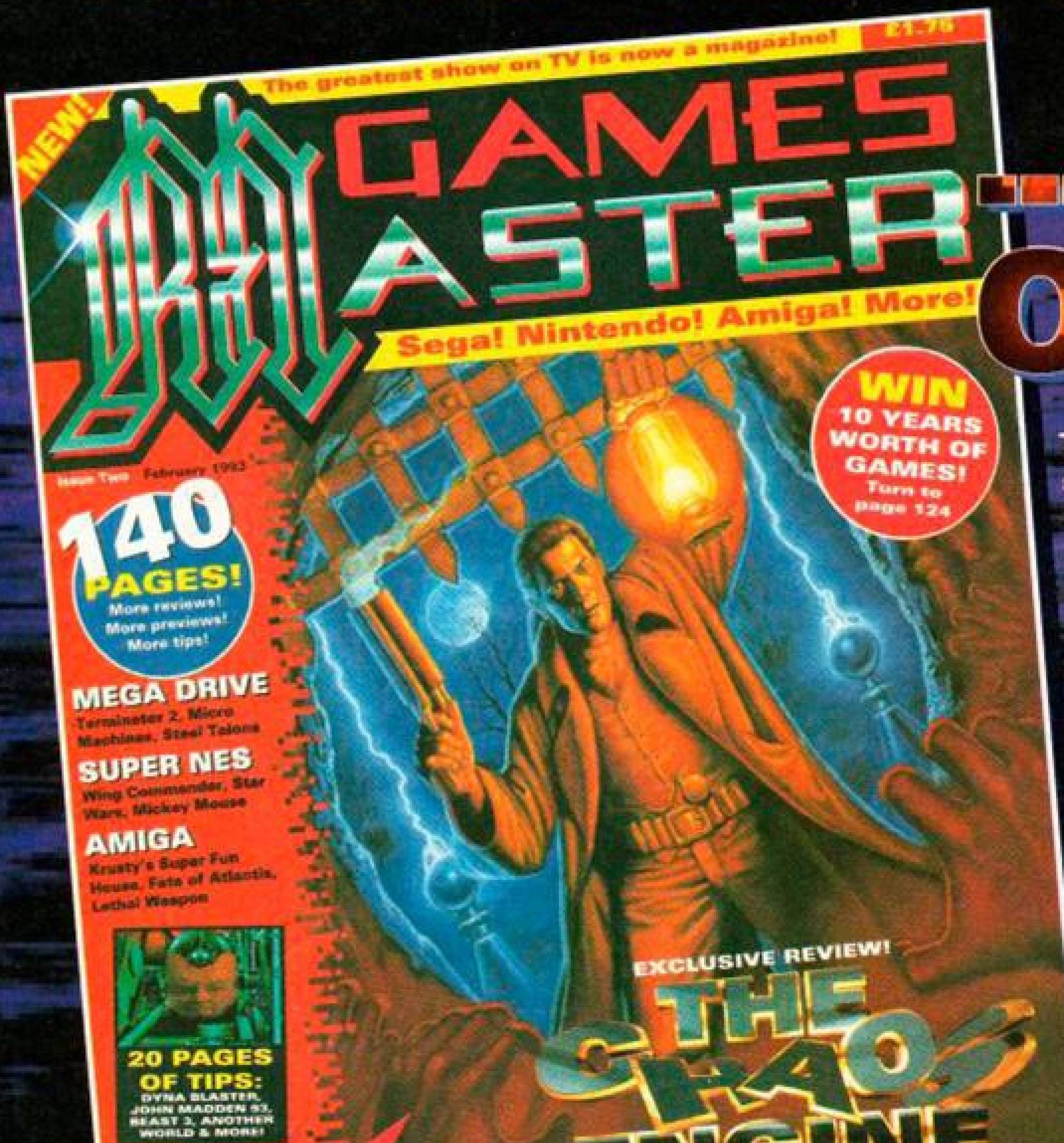
The first of these, in August 1991, was held in Germany: 1992's took place in France. This year's will be held much closer to (our) home – in Britain. Make yourself known as an aspiring demo-coder, and you could be invited – along with Europe's elite of CPC programmers!



Hands up all those who can spot our very own Mr Fairhurst in a CRTC T-shirt!

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Balrog

Danger! Balrog at work! Yet again the Balg slaves doggedly over another issue to provide as much adventuring as will fit in a two page spread! So get reading the only Amstrad specific adventure column left...

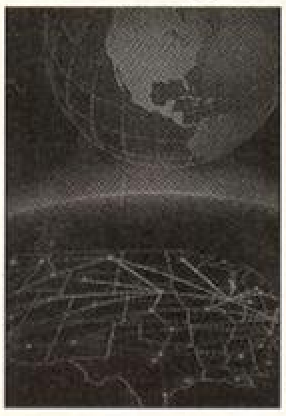
This month's strong sniff of clues comes from two frequent cluepot contributors – Laurence Boyce from Leeds and Thomas Christie from Grangemouth. Thanks Laurence and Thomas!

Grue-Knapped

- The key is in the painting of Ormskirk Quay and is used to unlock the cupboard door.

Helvira – Mistress of the Park

- Lie on the bed, press film, get up, lie under bed, press play, crawl out from under bed, crawl out of the door.



Imagination

- Give the satellite maps of earth to Gayle If you have done the above and have got the chips you will be able to divert the dogs.
- Give stale bread to the bat.

Red Herring

Whilst at the Adventure Convention the Balg was impressed by a fanzine called *Red Herring* and decided to write to the editor for more details.

Red Herring has, it appears, been going for seven months now and has to be one of the most professionally written and laid out fanzines that the Balrog has seen.

Although expensive at £2.95 a throw, you get over 80 pages of spiral-bound adventure text which is often printed in a small font to cram as much as possible on each page!

The mag covers both 8-bit and 16-bit and, to be honest, the Amstrad coverage is quite low, but over a third of the magazine is dedicated to general adventurish articles that are applicable to everyone.

The editor, Marion Taylor, has a special offer for *AA* readers – buy six issues at £17.70 and get one free. Marion also tells me that the next issue has a special 8-bit crossword competition so if you fancy a go why not buy a copy and have a look for yourself!

For more details write to Marion at: 504 Ben Jonson House, Barbican, London EC2Y 8DL.

Mystery of the Indus Valley

- Get the knife and cut rope.
- Go to part of cliff with tree stump and go down (you must have the rope).

Seabase Delta

- Use pancake to cover camera lens.
- Iron the crumpled foil.
- Use mast to lever cannon.

Subsunk

- To open the tatty packing case, fire the gun.

Terrormolinos

- Examine washing line to find swimming trunks.
- Examine the tardis for the bucket and spade.
- Open the drawer to find the red hanky.
- Examine the settee to find the passport.
- Examine the brochure to find the tickets.

Videoworld

- To make night fall, close the curtains.
- If, however, you find the room is full of smoke then pull them immediately.

Werewolf Simulator

- Give some money to wino.
- Sell your watch and buy the silver.

Wizbiz

- If you have the short rod, "fish" at the river.
- Kiss frog.

Help!

Stuck in an adventure? Or desperately trying to find one – the helpline is the place for you! Just send a postcard to Balrog's Helpline at the usual Balrog address.

HOW DO YOU GET the holy water from friar Kane without killing him and how are you meant to enter Hedric's Fortress in Ganestor in Times of Lore?
Brian "Brains" Caulfield, Mullamurphy, Monaghan, Co. Monaghan, Eire

WANTED: HELP IN DIZZY, PRINCE of the Yolk Folk – where is Seamus the Leprechaun and how many cherries do you need to complete the game?

GAC Programming Clinic

● *Send all your GAC queries in to: GAC Programming Clinic, Amstrad Action, Beauford Court, 30 Monmouth Street, Bath, Avon BA1 2BW.*

I was reading through *AA82* last night when I came to your hallowed pages (why only two?) and saw the plea for a *GAC* routine to move a character around. Here is my own routing; the character moves around at random.

GAC Character moving routine

By the Dwarrow (The character that's going to be moved will be referred to as *.)

```
HIGH:

1) CTR ( 4 ) = ROOM END
2) FIND * END
3) IF ( CONN ( 1 ) AND RAND ( 4 ) AND RES? (
   5 ) ) * TO n SET ( 5 ) END
4) IF ( CONN ( 2 ) AND RAND ( 4 ) AND RES? (
   5 ) ) * TO n SET ( 5 ) END
5) IF ( CONN ( 3 ) AND RAND ( 4 ) AND RES? (
   5 ) ) * TO n SET ( 5 ) END
6) IF ( CONN ( 4 ) AND RAND ( 4 ) AND RES? (
   5 ) ) * TO n SET ( 5 ) END
```

(If you have more movement verbs (such as up and down), add similar lines on the end of this part, and change the RAND (4) bit to RAND (x) where x is the number of possible movement verbs).

```
7) GOTO CTR ( 4 ) RESE ( 5 ) END
```

(This routine only moves one character as it stands but it could very easily be expanded by repeating lines 2-6 before line 7 with a different object number instead of *). Character movement can also be restricted by adding conditions to the local list:

```
LOCAL (Room 17)

1) IF ( VERB 1 ) GOTO 7 END
```

Danger! Adventurer at Work! 2

£2 tape, £4 disk • WoW Software, Joan Pancott HPilg, 78 Radipole Lane, Weymouth, Dorset DT4 9RS

DAAW2 continues from the last location of the first game. Having finally found a peaceful haven to play adventures, you settle down only to be interrupted by a power cut – in the excitement of the first game you forgot to pay the 'leccy bill! So, off you pop through the portal, to travel between planes of existence to pay off your account as well as meeting strange people and recovering weird objects that could only have been thought up by Simon Avery.

The parser is good, as long as you are aware of the Quill two-word input restriction (although Simon has managed to implement Look Behind (as LOBE) and other look commands that add to the game). The INFO command also brings up a list of useful commands.

The game is actually very well written, with humour and devious puzzles thrown in for good measure. Oh, and look our for a friendly slug who slurps and squidges his way after you...

The only problem with the game is that it is short, but for only £2 it is still very good value.

VERDICT

ATMOSPHERE 75%
Well devised characters and good descriptions

INTERACTION 72%
The parser's limited to two words but this isn't a problem

CHALLENGE 71%
Not as big as some games but then what do you expect for £2?

A well-crafted game that proves Simon deserves his recent award

RATING 78%

Helen Yeo, 11 Lear Drive, Wistaston, Crewe, Cheshire CW2 8DP

WANTED: SEAS OF BLOOD (Adventure International).
Martin Williams, 114 Florence Road, Parkstone, Poole, Dorset BH14 9JG

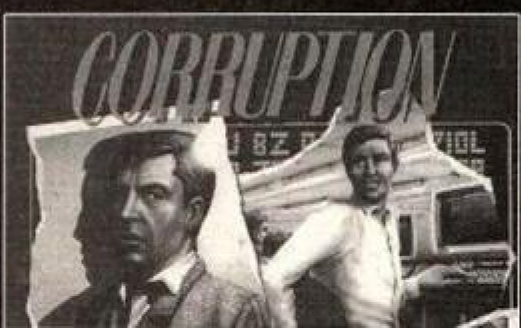
HAS ANYONE GOT the *AA42 Bards Tale* poke on disk? I can't type it in correctly! Also will Amir Mansour please get in contact with me.
Robert, 081 668 8525, 5-7pm

WANTED: HELP IN TIR NA NOG – how do you get past the fire lizard, an-Lin, open the 'F' and 'N' doors and where is the second half of the Torc buried.
Phil T, 108 Enerdale Avenue, Botcherby, Carlisle

HOW DO I REPAIR the golden sundial in *Knight Tyme*? How do I get the amulet from the aura of fire or get out of the swamp in *Shard of Inovar*?
Steven Parker, 46 Woodgate Gardens, Bartley Green, Birmingham B32 3UW

Just for Laughs

This month's collection of bone-tickling amusing responses is thanks to the following fine adventurers; Shane O'Sullivan, Yannis Sariyannis, Daniel Argent and Katharyne Allen.



Big Sleaze

- Say to Velma "Hello".
- Look in the toilet at the diner.
- Go north, south or up at the bottom of the police station stairs.
- Examine junk in "Mustah Wangs" back room in Chinatown.
- Examine items in window of pawn shop.
- Read grafitti in 21st Street.
- Examine tea box at your home.
- Examine statues in Brooklyn Heights.

Corruption

- After you have been in hospital, tell sergeant about what happened, e.g. the salvation army man and the BMW.
- Kiss people.
- Turn on televisions.
- While in the toilet, urinate in the urinal.
- Buy the razor from the chemist and give yourself a shave.
- Hit the policeman (get taken to jail), and then hit the guy in jail with you.

Pawn

- Try riding the adventurer's horse, and then kill it. *(Doesn't sound very nice! – Ed)*
- Try killing the guru and Kronos.

Worm in Paradise

- Examine me
- Go to the police station and type "GIVE ME" – you'll now have access to every object in the game!

Lords & Ladies of Adventure

Adult 1 & 2 • Al-Strad • Big Sleaze • Boredom • Burlough Castle • Can I Cheat Death? • Case of the Mixed-up Shymer • Castle Blackstar • Cave Capers • Cursed be the City • Doomlords I-III • Dracula • Druids Moon • Dungeon • Experience • Firestone • Frankenstein • Gnome Ranger • Gremlins • Jason & the Argonauts • Kobyashi Naru • Magicians Apprentice • Mystery Indus Valley • Price of Magik • Project X (Microman) • Roog • Scapeghost • Souls of Darkon • Spacy • Storm Mountain • Stryptiche 1 & 2 • Swamp Thing • Theseus • Venom • Welladay • Wolfman.
Mark Wake, 2 Oatland Close, Little London, Leeds LS7 1SW

Big Sleaze • Gremlins • Megabucks • Seabase Delta.
Darren Sharp, 10 Alfred Road, Greatstone, Kent TN28 8SH

Questprobe 3
Rich Thomas, 85A St. Johns Road, Cannock, Staffs, WS11 3AL. Tel: (0543) 503045, Mon-Fri, 5-10pm

Colour of Magic • Forest at World's End • Gnome Ranger • Heroes of Karn • Rebel Planet • Questprobe • Seabase Delta • Subsunk
The Dragon Master, 12 Gretton Crescent, Aldridge, Walsall, West Midlands, WS9 ODY

Knightmare • Rebel Planet
Ross Younger, 3 Cammo Parkway, Edinburgh, EH4 8EP

Bard's Tale • Hitchhiker's Guide • Hobbit • Lord of the Rings • Pawn • Shadows of Mordor
David Nicholas, 23 Houghton Lane, Sancton, East Yorkshire YO4 3QU

Adult II • Can I Cheat Death? • Doomlords • Firestone • Jason and the Argonauts • Roog • Spacey • Tizpan
Adam Maxwell, 9 Peth Green, Hetton-le-Hole, Tyne & Wear DH5 OEY

Brass Lamp news

Due to various technical problems, the first issue of *The Brass Lamp* has been delayed. However, we're told that it will now be out in the New Year, and everyone who's ordered a copy to date will get one then.

Contacting the Balg

Write to: The Balrog, Amstrad Action, Future Publishing Ltd, Beauford Court, 30 Monmouth Street, Bath, AVON BA1 2BW.

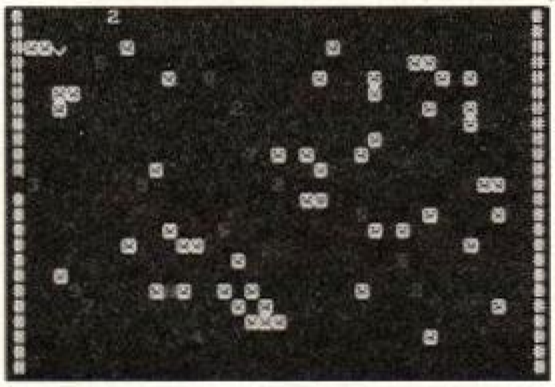
Type-ins

Do the listings look a little different this month? That's because we've completely redesigned our type-ins checking system to make it utterly, completely foolproof, once and for all. (See box for details). And now, on with the show...

Number Scoffer

Written in only 2K, *Number Scoffer* by Dean Jackson of Fleetwood, is yet another variation of the venerable *Pac-Man* type game. As always however, there's a difference. In this game, you've got to eat numbers rather than power pills, and each that you manage to gobble is another value added to your total score. Of course, enemies in the form of ghosts are out to stop you and there are plenty of 'em to do it, too! You musn't touch the walls of the maze either. Joystick control only and there are no instructions – the game's simple.

```
LAMN 5·ON·BREAK·CONT:BORDER·0:INK·0,0:PAPER·0
     :INK·1,24
EAJJ 10·'NUMBER·SCOFFER
FAGD 20·'DEAN·JACKSON·2.3.92
CAPD 30·'AGED·13
CAAM 40·GOSUB·480
CABM 50·GOSUB·390
EAML 60·'****·MAIN·LOOP·****
CANM 70·A$=INKEY$
KAII 80·IF·A$="↑"·AND·X>3·THEN·X=X-1:C$=CHR$(
     198):P=1
KAGL 90·IF·A$="↓"·AND·X<24·THEN·X=X+1:C$=CHR$
     (196):P=2
KABL 100·IF·A$="←"·AND·Y>2·THEN·Y=Y-1:C$=CHR$
     (197):P=3
```



Mind those ghosts! There's no maze to work round, but lots of baddies to avoid...

```
KALO 110·IF·A$="→"·AND·Y<38·THEN·Y=Y+1:C$=CHR
     $(199):P=4
IAPK 120·IF·A$=""·AND·P=1·AND·X>3·THEN·X=X-1
IAAO 130·IF·A$=""·AND·P=2·AND·X<24·THEN·X=X+1
IAFL 140·IF·A$=""·AND·P=3·AND·Y>2·THEN·Y=Y-1
IAMO 150·IF·A$=""·AND·P=4·AND·Y<38·THEN·Y=Y+1
GAIE 160·LOCATE·YY,XX:PRINT"·"
ABJM 170·IF·S(Y,X)>0·AND·S(Y,X)<10·THEN·SC=SC
     +S(Y,X):SOUND·1,150,4,4:S(Y,X)=0
JAEO 180·IF·S(Y,X)>9·THEN·GOTO·260:'****·LOSE
     ·****
FANL 190·LOCATE·Y,X:PRINT·C$
FALJ 200·LOCATE·7,1:PRINT·SC
DAKH 210·XX=X:YY=Y
JBAO 220·IF·RND>0.96·THEN·A=INT(RND*36)+2:B=I
     NT(RND*21)+3:LOCATE·A-1,B:C=INT(RND*9)+1
     :S(A,B)=C:PEN·3:PRINT·C:PEN·1
EBNO 230·IF·RND>0.84·THEN·F=INT(RND*36)+2:G=I
     NT(RND*21)+3:LOCATE·F,G:PRINT·CHR$(225):
     S(F,G)=10
EAPA 240·SOUND·1,600,1,4
CAGH 250·GOTO·60
DACK 260·'****·LOSE·****
FAGJ 270·SOUND·2,600,16,7,1,12,2
FAHK 280·SOUND·4,600,80,7,9,13,6
FAIJ 290·SOUND·1,600,30,7,4,1,15
BAFJ 300·CLS
DADI 310·LOCATE·17,12
EAIB 320·PRINT"OUCH!!!"
JAFD 330·PRINT:PRINT"YOUR·SCORE·WAS·";SC
LAHA 340·PRINT:PRINT:PRINT"ANOTHER·GAME·?·(Y/
     N)"
GAKN 350·D$=INKEY$:IF·D$=""·THEN·350
HABF 360·IF·D$="Y"·OR·D$="y"·THEN·RUN
NANK 370·IF·D$="N"·OR·D$="n"·THEN·PRINT:PRINT
     :PRINT"O.K.":END
EAHJ 380·IF·D$<>""·THEN·350
EAJA 390·'****·SCREEN·***
CAKC 400·MODE·1
BAHJ 410·CLS
KAHF 450·FOR·T=1·TO·24:PRINT"#";TAB(39);"#":N
     EXT·T
CALJ 470·RETURN
GAEJ 480·'****·INITIALISATION·****
DACF 490·DIM·S(40,25)
EANB 500·X=20:Y=13:SC=0
DANH 510·XX=X:YY=Y
EAJC 520·F=0:G=0:A=0:B=0
CAIJ 530·RETURN
```

Height

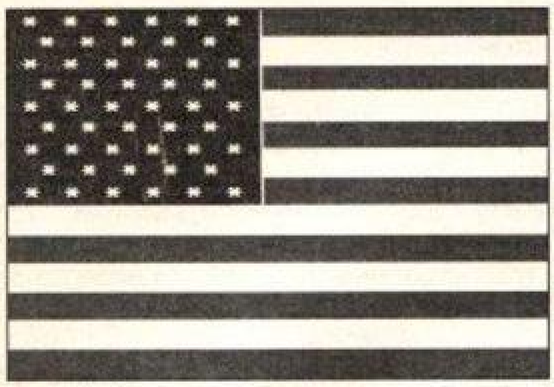
Just occasionally, we get something really different in the Type-Ins mail bag and *Height* is that something. Written by James Ross of Ely, Cambs, *Height* is a little snippet which works out what you height will be when you're fully grown, given your age and height now. Fully prompt-driven, the program requires you to input your personal details and, quick as a flash, prints on screen your expected eventual height. A novel use is to ask your parents what height they were at age nine, say, and use the program to calculate what their height should be now!

```
CABP 1·'·Height
FABB 2·'·(C)·James-Ross
OAHK 3·'·THIS·PROGRAM·MAY·BE·FREELY·COPIED·AM
     OUNG·P.D·LIBARIES
BAHP 10·MODE·1
GAMC 20·PRINT"··················HEIGHT"
KAKA 30·PRINT"············";CHR$(164);"·JAMES
     -ROSS·92"
ABCI 40·WINDOW·1,40,12,15:INPUT"Please·type·i
     n·your·age.·",age
OBDD 50·IF·age<=7·OR·age>=20·THEN·PRINT"Sorry
     ·this·program·only·works·for·peopleaged·
     8·to·19":GOTO·290
BBJE 60·INPUT"Please·type·in·your·height·in·C
     M's.·",height
LAKG 70·PRINT"Are·you·male·or·female·(M/F)"
IAMJ 80·sex$=INKEY$:IF·sex$=""·GOTO·80
KAIB 90·IF·sex$="M"·OR·sex$="m"·THEN·GOTO·120
KAHD 100·IF·sex$="F"·OR·sex$="f"·THEN·GOTO·35
     0
CADH 110·GOTO·80
EADB 120·'Male·data
LAMI 130·IF·age=8·THEN·LET·final=height*100/7
     2
LABJ 140·IF·age=9·THEN·LET·final=height*100/7
     5
LANL 150·IF·age=10·THEN·LET·final=height*100/
     78
MAIB 160·IF·age=11·THEN·LET·final=height*100/
     81.1
MAOB 170·IF·age=12·THEN·LET·final=height*100/
```

Basic Tutorial... Basic Tutorial... Basic Tutorial...

Last month, I told you all about the subroutine. Why and when you should use it, but we still haven't examined an actual routine in detail. Right, let's get to it. Let's look at that password checking subroutine in our character counting code and examine the construct in greater detail. For those who missed it, here it is again:

```
5 REM This is a program to count the characters
  in a string
10 VALID$="valid"
15 ON BREAK GOSUB 500
20 FOR CNT=1 to 5
30 A$=""
40 INPUT "Please type a string"; A$
50 IF A$="" THEN 40
60 IF ASC(A$)<65 OR ASC(A$)>122 THEN PRINT
   "Invalid input. Try again\": GOTO 30
70 PRINT "The string '"A$"' is "LEN (A$)
   "characters long."
80 NEXT CNT
90 END
500 REM This code checks for a valid code
   examination
510 CLS: LOCATE 15,7
520 PRINT "ACCESS ATTEMPT - ENTER PASSWORD"
530 LOCATE 20,10
540 INPUT "Enter password:"; PASS$
550 IF PASS$="" THEN 540
560 IF ASC(PASS$)<>ASC(VALID$) THEN CLS:LOCATE
```



Coo, look at this, it's the American flag...

```
     84.2
MAEC 180·IF·age=13·THEN·LET·final=height*100/
     87.3
MADC 190·IF·age=14·THEN·LET·final=height*100/
     91.5
MANB 200·IF·age=15·THEN·LET·final=height*100/
     96.1
MADC 210·IF·age=16·THEN·LET·final=height*100/
     98.3
MAGC 220·IF·age=17·THEN·LET·final=height*100/
     99.3
MANC 230·IF·age=18·THEN·LET·final=height*100/
     99.8
KAMG 240·IF·age=19·THEN·LET·final=height
FAEL 245·WINDOW·1,40,12,18:CLS
HAJH 250·PRINT"If·you·are·MALE."
HACM 260·PRINT·age;"years·old."
IADI 270·PRINT·height;"CM's·tall."
GBOE 280·PRINT"Then·your·final·height·will·be
     ·approx·";final;"CM's·tall."
CAIE 290·PRINT
HABE 300·PRINT"Another·go·Y/N"
KAEF 310·again$=INKEY$:IF·again$=""·GOTO·310
KAFM 320·IF·again$="Y"·OR·again$="y"·THEN·RUN
MACE 330·IF·again$="N"·OR·again$="n"·THEN·MOD
     E·1:END
CAEK 340·GOTO·310
EADO 350·'Female·data
LAJP 360·IF·age=8·THEN·LET·final=height*100/7
     7.5
LAHP 370·IF·age=9·THEN·LET·final=height*100/8
     0.7
MABC 380·IF·age=10·THEN·LET·final=height*100/
     84.4
MALC 390·IF·age=11·THEN·LET·final=height*100/
     88.8
MAAC 400·IF·age=12·THEN·LET·final=height*100/
     92.9
MACC 410·IF·age=13·THEN·LET·final=height*100/
     96.5
MAEC 420·IF·age=14·THEN·LET·final=height*100/
     98.3
MAFC 430·IF·age=15·THEN·LET·final=height*100/
     99.1
MAMC 440·IF·age=16·THEN·LET·final=height*100/
     99.6
KAOG 450·IF·age=17·THEN·LET·final=height
KAAH 460·IF·age=18·THEN·LET·final=height
KACH 470·IF·age=19·THEN·LET·final=height
```



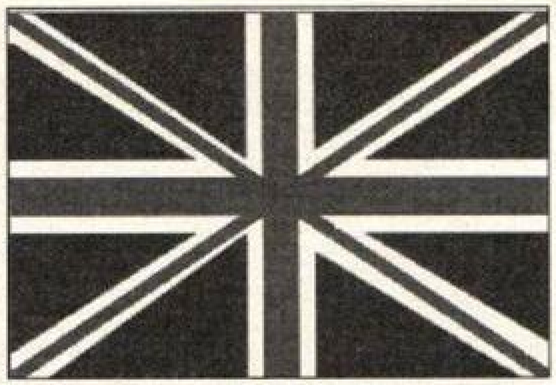
...and now the Canadian national emblem...

```
FAJL 475·WINDOW·1,40,12,18:CLS
IAJA 480·PRINT"If·you·are·FEMALE."
HAHM 490·PRINT·age;"years·old."
IAPH 500·PRINT·height;"CM's·tall."
GBKE 510·PRINT"Then·your·final·height·will·be
     ·approx·";final;"CM's·tall."
CAEE 520·PRINT
HAGE 530·PRINT"Another·go·Y/N"
KAJF 540·again$=INKEY$:IF·again$=""·GOTO·310
KAKM 550·IF·again$="Y"·OR·again$="y"·THEN·RUN
MAHE 560·IF·again$="N"·OR·again$="n"·THEN·MOD
     E·1:END
CAJK 570·GOTO·310
```

Flags

Flags produces, a screen at a time, full colour flags from around the world. Ross Riley of Bromsgrove's the man behind the program and he's managed to cram it into just 5K – a remarkable achievement considering the complexity of some of the graphics. Full instructions contained within the program.

```
EAKH 10·MODE·1:CALL·&BC02
LAIG 20·LOCATE·15,2:INK·1,24:PEN·1:PRINT·"FLA
     GS·DEMO"
LAFP 30·FOR·a=14·TO·25:LOCATE·a,3:PRINT·CHR$(
     208):NEXT
BEBO 40·PRINT:PRINT·"·This·is·a·demo·which·sh
     ows·various······flags·of·countries·arou
     nd·the·world.····The·flags·take·up·a·who
     le·screen·and···are·as·follows-GREAT·BR
     ITAIN,·FRANCE,···ITALY,·IRELAND,·GERMANY
     ,·CZECHOSLO-"
HBIG 50·PRINT·····"·VAKIA,·SWITZERLAND,·SPAIN
     ,·THE·UNITED···STATES·OF·AMERICA,·JAMAIC
     A·and·CANADA."
IBNM 60·PRINT:PRINT·"·After·you·have·viewed·e
     ach·flag·press···a·key·to·continue."
GCLH 70·PRINT:PRINT·"·This·program·is·public·
     domain·and·may···be·freely·copied,·but·i
     t·must·not·be····changed·in·any·way."
KBGB 80·INK·2,6:PEN·2:PRINT:PRINT:PRINT·"····
     ·····WRITTEN·BY·ROSS·RILEY":PEN·1:LOCATE
     ·14,25:PRINT·"PRESS·SPACE"
LAFH 90·ON·BREAK·STOP:IF·INKEY(47)=0·THEN·100
     ·ELSE·90
EAKK 100·CALL·&BB03:MODE·1
CAGP 110·BORDER·24
```



...and, of course, the good old Union Jack.

```
MAAP 120·country$="GREAT·BRITAIN":GOSUB·870:G
     OSUB·230
GAGI 130·'·FLAG·OF·GREAT·BRITAIN
GCKA 140·INK·0,26:MOVE·300,1:DRAW·300,180:DRA
     W·1,180:DRAW·1,220:DRAW·300,220:DRAW·300
     ,399:DRAW·340,399:DRAW·340,220:DRAW·640,
     220:DRAW·640,180:DRAW·340,180:DRAW·340,1
     :DRAW·300,1
GAFO 150·MOVE·320,200:INK·3,6:FILL·3
EBOF 160·MOVE·10,1:DRAW·639,389,3:MOVE·629,39
     9:DRAW·1,11,3:MOVE·2,9:FILL·3:MOVE·628,3
     88:FILL·3
EBAF 170·MOVE·629,1:DRAW·1,389,3:MOVE·11,399:
     DRAW·639,11,3:MOVE·632,5:FILL·3:MOVE·2,3
     90:FILL·3
NBMM 180·INK·0,26:MOVE·360,1:DRAW·360,140:DRA
     W·609,1:MOVE·370,2:INK·2,1:FILL·2:MOVE·6
     39,41:DRAW·420,160:DRAW·639,160:MOVE·618
     ,143:FILL·2·
LBCH 190·MOVE·639,240:DRAW·420,240:DRAW·639,3
     69:MOVE·628,251:FILL·2:MOVE·360,399:DRAW
     ·360,250:DRAW·609,399:MOVE·370,390:FILL·
     2
JBEL 200·MOVE·30,399:DRAW·280,240:DRAW·280,39
     9:MOVE·80,390:FILL·2:MOVE·1,240:DRAW·220
     ,240:DRAW·1,369:MOVE·2,278:FILL·2
IBLB 210·MOVE·40,1:DRAW·280,160:DRAW·280,1:MO
     VE·80,5:FILL·2:MOVE·1,30:DRAW·220,160:DR
     AW·1,160:MOVE·2,100:FILL·2
HAAN 220·CALL·&BB03:CALL·&BB18:GOTO·250·
OAGN 230·MOVE·1,1:DRAW·639,1:DRAW·639,399:DRA
     W·1,399:DRAW·1,1:RETURN
FAMJ 240·'·THE·FLAG·OF·FRANCE
CANC 250·MODE·1
LAIA 260·country$="FRANCE":GOSUB·870:GOSUB·23
     0
FBOP 270·INK·0,26:MOVE·210,1:DRAW·210,399:MOV
     E·430,1:DRAW·430,399:MOVE·441,10:FILL·3:
     MOVE·10,10:FILL·2
FAMI 280·CALL·&BB03:CALL·&BB18
FAFH 290·'·THE·FLAG·OF·ITALY
MAHI 300·MODE·1:country$="ITALY":GOSUB·870:GO
     SUB·230
FBJM 310·MOVE·210,1:DRAW·210,399:MOVE·430,1:D
     RAW·430,399:MOVE·10,10:INK·2,9:FILL·2:MO
     VE·600,10:FILL·3
FAHI 320·CALL·&BB03:CALL·&BB18
FAMO 330·'·THE·FLAG·OF·IRELAND
NAHA 340·MODE·1:country$="IRELAND":GOSUB·870:
```

Basic Tutorial... Basic Tutorial... Basic Tutorial...

```
15,15:PRINT "INVALID PASSWORD": NEW
570 RETURN
```

We've set up line 500 as the start of the subroutine, even though that's a long way from the consecutive (at least, multiples of 10) line numbers of the earlier part of the program. This, if only in your own mind, will shove the routine out into the fringe of the program and make it feel separate, at least. If we had several more routines to add, they might appear at 1000, 1500, 2000 and so on. In this way, you can easily break up tasks into subroutines and have an overall controlling 'program' at the beginning which calls subroutine as and when they're needed. But back to our code...

Line ten sets up the actual password, in this case the word 'valid'. Obviously, any other word (or nonsense word such as flurmspurgle – it's all one to the machine) could be used. You can also use combinations of letters, numbers, control codes and so on to add even greater protection (it's much easier to guess someone's middle name, car registration number or date of birth than it is to guess a collection of gobbledegook!). The password is assigned to a string variable called VALID$.

Line 15 is our by now familiar ON BREAK construct. This time however, instead of instructing the CPC to stop processing when escape is pressed, we want the machine to whizz off to the password routine.

New codes!

In order to fix all those irritating hassles you all had with the previous Type-Writer routine, we've provided you with a better one! Aren't we kind? Anyway, the same rules apply as with the old routine, except that the codes will appear in highlighted text on your CPC screen. (Wow!) However, the new routine does produce different codes to the last one. You can find the new routine, "TypeChecker" on the covertape – under the filename "TYPE-CHEK.BAS". Use it from now on, and consign your old "TWRITER.BAS" to the bin!

```
     GOSUB·230
FBHP 350·MOVE·210,1:DRAW·210,399:MOVE·430,1:D
     RAW·430,399:MOVE·10,10:FILL·2:MOVE·600,1
     0:INK·1,15:FILL·1
FALI 360·CALL·&BB03:CALL·&BB18
GAEA 370·'·THE·FLAG·OF·GERMANY
NAPB 380·MODE·1:country$="GERMANY":GOSUB·870:
     GOSUB·230
NBCP 390·MOVE·1,130:DRAW·640,130:MOVE·1,270:D
     RAW·640,270:MOVE·10,10:INK·1,15:FILL·1:M
     OVE·10,150:INK·3,6:FILL·3:MOVE·10,280:IN
     K·2,0:FILL·2
FAGI 400·CALL·&BB03:CALL·&BB18
IACA 410·'·THE·FLAG·OF·CZECHOSLOVAKIA
PANB 420·MODE·1:country$="CZECHOSLOVAKIA":GOS
     UB·870:GOSUB·230
KBLI 430·INK·0,1:MOVE·1,1:DRAW·320,200:DRAW·1
     ,399:MOVE·320,200:DRAW·640,200:MOVE·100,
     20:FILL·3:MOVE·400,300:INK·2,26:FILL·2
FAKI 440·CALL·&BB03:CALL·&BB18
HAHE 450·'·THE·FLAG·OF·SWITZERLAND
OACG 460·MODE·1:country$="SWITZERLAND":GOSUB·
     870:GOSUB·230
LCFP 470·INK·0,6:MOVE·290,70:DRAW·290,170:DRA
     W·190,170:DRAW·190,230:DRAW·290,230:DRAW
     ·290,330:DRAW·350,330:DRAW·350,230:DRAW·
     450,230:DRAW·450,170:DRAW·350,170:DRAW·3
     50,70:DRAW·290,70:MOVE·320,200:FILL·2
FAOI 480·CALL·&BB03:CALL·&BB18
FAPG 490·'·THE·FLAG·OF·SPAIN
MABI 500·MODE·1:country$="SPAIN":GOSUB·870:GO
     SUB·230
IBLB 510·BORDER·0:INK·0,24:MOVE·1,100:DRAW·64
     0,100:MOVE·1,300:DRAW·640,300:MOVE·10,10
     :FILL·3:MOVE·10,310:FILL·3
FAJI 520·CALL·&BB03:CALL·&BB18
GADG 530·'·THE·FLAG·OF·THE·U.S.A.
PAPH 540·MODE·1:country$="THE·U.S.A.":GOSUB·8
     70:GOSUB·230:INK·1,26
LAJG 550·INK·0,6:MOVE·1,187:DRAW·300,187,1:DR
     AW·300,399,1
IAHP 560·MOVE·20,393:TAG:PRINT·"*··*··*··*··*
     ··*";
IALI 570·MOVE·40,370:TAG:PRINT·"*··*··*··*··*
     ";
IAIP 580·MOVE·20,347:TAG:PRINT·"*··*··*··*··*
     ··*";
IAMI 590·MOVE·40,324:TAG:PRINT·"*··*··*··*··*
     ";
IAHO 600·MOVE·20,301:TAG:PRINT·"*··*··*··*··*
     ··*";
IANI 610·MOVE·40,278:TAG:PRINT·"*··*··*··*··*
     ";
IABP 620·MOVE·20,255:TAG:PRINT·"*··*··*··*··*
     ··*";
IAFI 630·MOVE·40,232:TAG:PRINT·"*··*··*··*··*
     ";
IACP 640·MOVE·20,209:TAG:PRINT·"*··*··*··*··*
     ··*";
GAPK 650·MOVE·10,200:INK·2,1:FILL·2
ABCO 660·MOVE·301,369:DRAW·640,369:MOVE·301,3
     39:DRAW·640,339:MOVE·630,350:FILL·1
ABAO 670·MOVE·301,309:DRAW·640,309:MOVE·301,2
     79:DRAW·640,279:MOVE·630,290:FILL·1
ABDN 680·MOVE·301,249:DRAW·640,249:MOVE·301,2
     18:DRAW·640,218:MOVE·630,230:FILL·1
ABIH 690·MOVE·301,187:DRAW·640,187:MOVE·1,156
     :DRAW·640,156:MOVE·630,170:FILL·1
PAIJ 700·MOVE·1,125:DRAW·640,125:MOVE·1,94:DR
     AW·640,94:MOVE·630,100:FILL·1
OAOP 710·MOVE·1,63:DRAW·640,63:MOVE·1,32:DRAW
     ·640,32:MOVE·630,40:FILL·1
FALI 720·CALL·&BB03:CALL·&BB18
FAHN 730·'·THE·FLAG·OF·JAMAICA
PALD 740·MODE·1:country$="JAMAICA":GOSUB·870:
     GOSUB·230:BORDER·1
ABAH 750·INK·0,24:MOVE·20,1:DRAW·320,180:DRAW
     ·619,1:MOVE·320,10:INK·2,9:FILL·2
NANL 760·MOVE·20,399:DRAW·320,220:DRAW·619,39
     9:MOVE·320,380:FILL·2
OALG 770·MOVE·1,20:DRAW·280,200:DRAW·1,379:MO
     VE·10,200:INK·3,0:FILL·3
NAJL 780·MOVE·639,20:DRAW·360,200:DRAW·639,37
     9:MOVE·620,200:FILL·3
FACJ 790·CALL·&BB03:CALL·&BB18
FAHI 800·'·THE·FLAG·OF·CANADA
MACK 810·MODE·1:country$="CANADA":GOSUB·870:G
     OSUB·230
HBPM 820·INK·0,26:MOVE·140,1:DRAW·140,399:MOV
     E·10,10:INK·3,6:FILL·3:MOVE·500,1:DRAW·5
     00,399:MOVE·600,20:FILL·3
FCPK 830·MOVE·315,30:DRAW·315,100:DRAW·250,90
     :DRAW·260,100:DRAW·200,150:DRAW·215,155:
     DRAW·205,200:DRAW·230,195:DRAW·240,210:D
     RAW·280,185:DRAW·270,245:DRAW·290,235:DR
     AW·320,290
LCPO 840·DRAW·350,235:DRAW·370,245:DRAW·360,1
     85:DRAW·400,210:DRAW·410,195:DRAW·435,20
     0:DRAW·425,155:DRAW·440,150:DRAW·380,100
     :DRAW·390,90:DRAW·325,100:DRAW·325,30:DR
     AW·315,30:MOVE·320,200:INK·3,6:FILL·3
FAPI 850·CALL·&BB03:CALL·&BB18
CAIH 860·GOTO·10
HCNP 870·LOCATE·5,12:INK·1,6:INK·0,26:PRINT·"
     THE·FLAG·OF·";:PRINT·country$:FOR·b=4·TO
     ·30:LOCATE·b,13:PRINT·CHR$(208):NEXT:FOR
     ·pause=1·TO·1000:NEXT:MODE·1:RETURN
```

Swap

Describing himself as "...a determined 12 year old", Paul Turner of Cleethorpes, South Humberside's determination to succeed on the Type-Ins pages has paid off. We couldn't resist publishing his natty little 4K game, Swap. The game involves turning Xs into Os and vice versa by shoving them around on a grid and pressing copy when you've selected one you want to swap. The ultimate goal is to end up with a mirror image of how the grid first started. Full instructions are contained within the program and there'a a high score table too.



In Swap you've got to... ouch... swap all the 'x's to 'o's and... eek... vice versa. Tricky.

```
IAGH 10·'Swap·.....·By·Paul·Turner
IAED 20·'For·Amstrad·Action·&·PD
EADF 30·'Initalize
IAOF 40·BORDER·0:INK·0,0:INK·1,26:INK·2,18
CAMB 50·INK·3,6
BAMP 60·MODE·1
EAMA 70·CX=18:CY=9:P=1
HAML 80·DIM·GRID(9):DATA·1,0,1,1,0,1,1,0,1
KAAG 90·RESTORE:FOR·A=1·TO·9:READ·GRID(A):NEX
     T
BBKL 100·PEN·2:LOCATE·18,1:PRINT·STRING$(5,15
     4):LOCATE·18,2:PEN·1:PRINT·"SWAP!"
JAPO 110·LOCATE·18,3:PEN·2:PRINT·STRING$(5,15
     4)
HABD 120·DATA·150,154,158,154,158,154,156
GANJ 130·DATA·149,32,149,32,149,32,149
HAHD 140·DATA·151,154,159,154,159,154,157
GAPJ 150·DATA·149,32,149,32,149,32,149
HAJD 160·DATA·151,154,159,154,159,154,157
GABK 170·DATA·149,32,149,32,149,32,149
HAED 180·DATA·147,154,155,154,155,154,153
DAHN 190·FOR·Y=8·TO·14
DAOP 200·FOR·X=17·TO·23
IALM 210·READ·Z:LOCATE·X,Y:PRINT·CHR$(Z)
CAAP 220·NEXT·X,Y
CBFJ 230·LOCATE·4,11:PRINT·"Moves·Taken":LOCA
     TE·27,11:PRINT·"Best··Score"
PAJA 240·DATA·"USE·THE·CURSOR·KEYS·TO·MOVE","
     AROUND·THE·GRID·AND"
IALE 250·DATA·"USE·COPY·TO·SWAP·IT·AND"
HAKN 260·DATA·"SURROUNDING·SQUARES"
GAOF 270·LOCATE·1,18:FOR·A=1·TO·4
```

Basic Tutorial... Basic Tutorial... Basic Tutorial...

And that's it, until line 500, the start of the routine proper. Line 500 is simply a reminder of what this particular subroutine does. It isn't necessary, and many programmers advocate leaving out REMs all together. Fine. If you're comfortable with a large collection of not necessarily instantly recognisable routines, then take out the REMs. Otherwise...

Line 510, clears the screen ready for inputting the password. Do you see that the line has more the one BASIC statement on it? That second part, LOCATE, does exactly that, it tells BASIC to relocate the current cursor position (ie the point at which text will next appear) to a new place - in this case, the middle of the screen.

Imagine the CPC's screen as a giant grid. Those numbers following the keyword LOCATE are x and y positions relative to that grid. Do bear in mind that you can't give grid references outside the valid range. At least, not without generating an error.

Next, line 520 writes 'ACCESS ATTEMPT – ENTER PASSWORD' at the newly repositioned cursor point. Clearing the screen like this and print upper-case text in the centre of it has the added bonus of carrying authority, and that's important with program protection (when often, the protection is merely an illusion and a bit of lateral thinking will break it easily. Try, for example, printing the ACCESS ATTEMPT stuff in lower case at the next cursor location on screen, and without clearing it beforehand – looks pretty limp, right?).

```
KAJK 280·READ·A$:XP=(40-LEN(A$))/2:PRINT·TAB(
     XP);A$
BAKP 290·NEXT
IAAB 300·MT=0:IF·BEST=0·THEN·BEST=10000
KAHL 310·PEN·3:LOCATE·30,12:PRINT·USING"#####
     ";BEST
IAPI 320·LOCATE·7,12:PRINT·USING"#####";MT
EAGK 330·DATA·18,9,20,9,22,9
FACC 340·DATA·18,11,20,11,22,11
FAJC 350·DATA·18,13,20,13,22,13
GAPJ 360·RESTORE·330:FOR·A=1·TO·9
JAKB 370·SYM$="X":IF·GRID(A)=0·THEN·SYM$="O"
KAFD 380·READ·X,Y:PEN·1:LOCATE·X,Y:PRINT·SYM$
CAMF 390·NEXT·A
FAJA 400·'Keypresses
JAEC 410·SYM$="X":IF·GRID(P)=0·THEN·SYM$="O"
IAFG 420·LOCATE·CX,CY:PEN·3:PRINT·SYM$
IALC 430·A$=INKEY$:IF·A$=""·THEN·GOTO·430
GAPI 440·SOUND·1,45,2:SOUND·4,90,2
HAEF 450·IF·A$=CHR$(240)·THEN·GOTO·550
HAKF 460·IF·A$=CHR$(241)·THEN·GOTO·590
HAHF 470·IF·A$=CHR$(242)·THEN·GOTO·630
HANF 480·IF·A$=CHR$(243)·THEN·GOTO·670
HADE 490·IF·INKEY(9)=0·THEN·GOTO·710
FACA 500·DATA·0,1,0,0,1,0,0,1,0
DAPI 510·RESTORE·500
OACL 520·c=0:FOR·a=1·TO·9:READ·b:IF·grid(a)=b
     ·THEN·c=c+1:NEXT
FAIK 530·IF·c=9·THEN·GOTO·970
CAJK 540·GOTO·430
BAGK 550·'Up
FALN 560·IF·CY=9·THEN·GOTO·430
IAJG 570·LOCATE·CX,CY:PEN·1:PRINT·SYM$
GAED 580·CY=CY-2:P=P-3:GOTO·360
CANH 590·'Down
GABA 600·IF·CY=13·THEN·GOTO·430
IAEG 610·LOCATE·CX,CY:PEN·1:PRINT·SYM$
GALC 620·CY=CY+2:P=P+3:GOTO·360
CALG 630·'Left
GAJA 640·IF·CX=18·THEN·GOTO·430
IAIG 650·LOCATE·CX,CY:PEN·1:PRINT·SYM$
GAPC 660·CX=CX-2:P=P-1:GOTO·360
CACO 670·'Right
GAIA 680·IF·CX=22·THEN·GOTO·430
IAMG 690·LOCATE·CX,CY:PEN·1:PRINT·SYM$
GAGC 700·CX=CX+2:P=P+1:GOTO·360
FAAH 710·'Copy·Pressed
IAGG 720·LOCATE·CX,CY:PEN·1:PRINT·SYM$
GAKH 730·IF·P=1·THEN·RESTORE·880
GANH 740·IF·P=2·THEN·RESTORE·890
GAHH 750·IF·P=3·THEN·RESTORE·900
GAKH 760·IF·P=4·THEN·RESTORE·910
GANH 770·IF·P=5·THEN·RESTORE·920
GAAI 780·IF·P=6·THEN·RESTORE·930
GADI 790·IF·P=7·THEN·RESTORE·940
GANH 800·IF·P=8·THEN·RESTORE·950
GAAI 810·IF·P=9·THEN·RESTORE·960
FAAE 820·FOR·A=1·TO·5:READ·B
KAFL 830·IF·GRID(B)=0·THEN·GRID(B)=1·ELSE·GRI
     D(B)=0
BALP 840·NEXT
CBBK 850·MT=MT+1:PEN·3:LOCATE·7,12:PRINT·USIN
     G"#####";MT:IF·MT=BEST·THEN·GOTO·1070
CAAL 860·GOTO·360
HAHF 870·'Change·Square·Data
DABK 880·DATA·1,2,4,0,0
DAGK 890·DATA·2,1,3,5,0
DAOJ 900·DATA·3,2,6,0,0
DAFK 910·DATA·4,1,7,5,0
DAOK 920·DATA·5,2,8,4,6
DANK 930·DATA·6,3,9,5,0
DAKK 940·DATA·7,8,4,0,0
DAFL 950·DATA·8,7,9,5,0
DAAL 960·DATA·9,8,6,0,0
FALB 970·'Win·Routine
MAAE 980·FOR·a=1·TO·4:LOCATE·1,17+a:PRINT·STR
     ING$(39,"·")
HAIB 990·NEXT:FOR·v=6·TO·0·STEP·-1
GANE 1000·FOR·t=100·TO·50·STEP·-2
IAIF 1010·SOUND·1,t,2,v:NEXT·t:NEXT·V
FBEI 1020·FOR·P=1·TO·500:NEXT:a$="YOU·COMPLET
     ED·THE·GAME":B$="AND·SET·A·NEW·HIGH·SCOR
     E":PEN·2
IAEH 1030·TA=(40-LEN(A$))/2:TB=(40-LEN(B$))/2
CBLH 1040·LOCATE·1,17:PRINT·TAB(TA);A$:IF·MT<
     BEST·THEN·PRINT·TAB(TB);B$:BEST=MT
PAJF 1050·LOCATE·3,24:PRINT·"PRESS·ANY·KEY·IF
     ·YOU·WANT·ANOTHER·GO"
KABP 1060·WHILE·INKEY$="":WEND:ERASE·GRID:GOT
     O·10
FAIK 1070·'Lose·Routine
MAIG 1080·FOR·a=1·TO·4:LOCATE·1,17+a:PRINT·ST
     RING$(39,"·")
CAJC 1090·NEXT
MAAG 1100·FOR·t=50·TO·100:SOUND·1,t,2:NEXT:SO
     UND·1,100,50
FALL 1110·FOR·p=1·TO·250:NEXT
LADK 1120·a$="YOU·FAILED·TO·FINISH·THE·GAME·B
     ECAUSE"
JAMJ 1130·B$="YOU·DIDN'T·BEAT·THE·HIGH·SCORE"
IACH 1140·TA=(40-LEN(A$))/2:TB=(40-LEN(B$))/2
MAAB 1150·PEN·3:LOCATE·1,17:PRINT·TAB(TA);A$:
     LOCATE·1,18
IAML 1160·PRINT·TAB(TB);B$:PEN·2:GOTO·1050
```

What we want from you!

Want to see your name in lights? (Well, on paper, actually). Then send us your BASIC programs! (No longer than 5K.) The address is:

Type-Ins
Amstrad Action
Beauford Court
30 Monmouth Street
Bath
Avon BA1 2BW

We're giving away £20 to the author of the BEST type-in published each month. But before you rush off and program your masterpiece, note the following requirements:

1. All programs must be 5K or less
2. They must be all your own work (no nicking stuff out of books and simply replacing the REM statements)
3. All programs must work on both the 464 and 6128
4. We prefer disks, but tapes will do
5. Allow four months (yes, four – sorry) for us to go through all the programs we're sent. It may not take that long, but we get busy spells



6. Lastly, DON'T forget to send a stamped SAE if you want your disk/tape returned to you!

Basic Tutorial... Basic Tutorial... Basic Tutorial...

So. We've warned the user of his/her access attempt and now we're going to demand a password. 530 relocates the cursor position again, swiftly followed by line 540 which demands a password (and this time, you can use lower case because in the right context, that can look pretty menacing too!)

Line 550 simple checks for input and cycles back to line 540 to get some if there isn't any – such as if the return key only is pressed.

Now a password has been typed into the machine and it must be checked. There are several ways to do that, but possibly the simplest is to check that its ASCII value (ie the sum of the ASCII values of each letter in the input) is the same as the password reference built into the program. This achieved with IF ASC, that is if the ASCII value of (PASS$), the input is not the same as (represented by <>) the ASCII value of the reference password ASC(VALID$) then clear the screen, relocate the cursor, print bog off or some such message and delete all traces of code (NEW). If it is the same, however, and the password is valid, then the NEW will never be reached and program progression falls to line 560, RETURN. Or in other words, go back to where you came from and continue processing as normal.

Simple, right? Carry on playing with the subroutine and, as always, have fun until next month.

● *Don't forget, one of the best ways of learning BASIC is by simply typing in other people's programs – you then build a picture of how the language works.*

AA SMALL ADS

For Sale

CPC 6128+, 5 cartridges, joypad/stick, loads of disks/books, DMP2000, £300 the lot. Portable computer desk, excellent condition £50. Large bundle of software, £100 o.n.o. Please ring for details (0865) 863177 evenings, and ask for Brian.

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AMSTRAD GAMES, all originals, £1 each. Buyer pays postage. Spectrum joysticks, Lightgun, loads of games £90 o.n.o. All games on tape only. Ring (0222) 795161 evenings only (Cardiff).

GAMES, SERIOUS SOFTWARE, books, manuals, and accessories for sale. For full list send SAE to: L K Chapman, 37 Avondale Road, Gelli, Pentre, Mid Glamorgan, CF41 7TW.

AMSTRAD CPC464 with mono monitor, manual, joystick, magazines and games. VGC, bargain £95. TV Modulator MPI £15. Amstrad DMP3000 printer (PC Compatible) £45. Phone (0276) 22693 (Camberley, Surrey).

CPC464, colour monitor, joystick, dust covers, handbook, ten manuals, sixteen magazines, about £500 of software. Cost around £900 - £950. Will sell for £230. Phone Andrew on (0592) 757044 after 6pm.

MASTER SYSTEM 2 with Alex Kid built in, plus 6 other games. Boxed, not even 6 months old. Excellent condition, worth £190, will sell for £120 o.n.o. Contact the Swan Inn (0460) 73302 after 6pm.

AMSTRAD CPC464, green screen, modulator, Lightpen, 1 joystick, over £200 worth of games including: RoboCop, Sega Mastermix, Movie Premier, etc. AA magazines (AA66+), and covertapes, manuals, quick sale at £300 o.n.o! Contact Paul (0492) 512915 (Clwyd).

SPECTRUM 128K +2, 2 joysticks, over £80 worth of games including: Untouchables, Final Fight, Batman etc. Crash magazines, manuals, printer, quick sale £110 o.n.o. Contact David G (0492) 512915 (Clwyd, North Wales).

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DD-1, £90. Multiface II+, £20. KOS modem for 6128 (no RS232 required) £50, 464 keyboard (tape broken) £15, 464 Firmware manual £15, Lightpen £5, AMX mouse £20. Maurice Homan, Eernewoudeweg 30, 6835JG, Arnhem, Holland.

AMSTRAD 6128 mono complete with Mini Office II, Music Machine F16 plus more disk and tape software, magazines, manual, tape recorder, joysticks. Phone Dunfermline (0383) 880880.

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CPC464, INCLUDES £400+ games, Lightpen, Lightgun, printer, manuals, magazines. Needs monitor or modulator. Total £170, will split. Tel (0462) 850787 (Beds).

GAMES TO SELL AND SWAP. Inc Gunship (disk), RoboCop (disk), T2 (tape), AFT (tape), and a few compilations. I'm looking for Pirates and Final Fight (disk). Phone Roland 031-6541443 (Edinburgh).

CPC464 WITH MODULATOR, stereo speakers, Speech Synth, £250 games, magazines etc. £100 o.n.o. Also Amstrad Action, 1 - 87 with tapes, sold as a set. Excellent, offers. Phone (0925) 227359 (Merseyside).

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AA 5-71 AND ACU Feb 86 to Aug 89. From £1 to £1.50. All in as new condition, with cover tapes. Call Des (0554) 752038 after 7pm. Buyer pays postage.

PANASONIC KXP-1081. Going cheap, needs printer cable. Cannot be delivered, £10. Ring Ian 081-874 7372.

FOR SALE: AMSTRAD CPC464 plus with 2 joysticks, games, magazines etc. Colour monitor and user manual. All mint condition £250 o.n.o. Tel (0553) 761109 anytime.

AMSTRAD CPC464 computer, boxed. Green monitor. Games worth approximately £170, joystick, all very good condition. Two years old, will sell for £100. Tel (0444) 881291(Sussex).

CPC464 green screen, modulator, 2 joysticks, manual, Lightgun, hundreds of games, Amstrad Action since 3 years ago, £225. All offers considered. Tel (0389) 397452.

CPC464 WITH COLOUR MONITOR. Manual, joystick and over 140 games, also included over 30 AA magazines. Everything in excellent condition, will sell for £120. May deliver. Tel: Cambridge (0223) 892561 evenings best.

AMSTRAD CPC464 with GT 65 monitor. It has around 140 games. Will sell all for £150 - includes all issues of Amstrad Action. Ring Leigh on (0262) 671948 after 4pm.

DK' TRONICS 256K RAM expansion for Amstrad CPC6128. Upgrade your Amstrads' memory. Includes switching software on disk. Full working order. Absolute bargain at £25. Tel (0444) 450454 and ask for Matt.

AMSTRAD CPC464 games for sale. £60 o.n.o. the lot. 33 games hits like RoboCop, Rambo 3 and many more. Phone Richard between 5pm and 9pm. Tel: 021-476 1226.

CPC6128 WITH COLOUR monitor, complete with manual, joystick, Lightgun, Multiface, tape lead, magazines and over £800 worth of tapes and disks. Excellent condition, £285 o.n.o. Tel: Neal (0602) 734438 (Nottingham).

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AMSTRAD CPC6128 WITH colour monitor, DMP2160 printer, tape deck, 100+ games, educational, DTP, all leads and manuals, lots of AA and ACU magazines, £250. Phone Mel (0952) 660284 after 5pm.

128K DATABASE from Enterprise Public Domain. Normal features and disk Utilities. £1.50 + SAE to: Enterprise PD, Castle Hotel, Castle Square, Caernarfon, Gwynedd LL55 2NN.

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AA ADS CONTINUED ON PAGE 45......

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Write your advertisement here, one word per box. Include your name and phone number if you want them

Power Up

ACTION TEST pages 44-49 • ACTION REPLAY pages 56-57 • CHEAT MODE pages 51-54

Okay, so maybe we haven't managed to get hold of Nigel Mansell's Grand Prix yet, but there's still plenty here to keep you happy and occupied. Dive in and wallow!



Simon Forrester

"Aargh, help, help!" Oh sorry, we forgot to warn you about our new staff writer! He's called Simon and he comes to AA Towers fresh from the far-away climes (well, it's quite far from Bath) of Leicester. Simon's lived there all his life and describes it as "a fun place that gets a bit too intense at times." Simon spook fact number 362: He can't blow his nose.



Linda Barker

Linda hasn't actually written any reviews for AA this month, but she has been hanging around the office. Y'see, Linda's taking over the Ed's chair next month and she kept coming in to try it out for size. Poor Rod! Every time he turned his back Linda had nipped in to the swishest swivel chair this side of the throne room in Buckingham Palace. Linda spook fact number 581: She has just plain broccoli for dinner five days a week.



Jonathan Nash

This is Jonathan, you might remember him from a few issues back. In those days he was called Jon Pillar, but he's since changed his name to Jonathan Nash. He's keeping his motives well hidden and nobody can even guess why he's done such a patently ridiculous thing. Take a good look at his visage though, you'll be seeing quite a bit of him in the months to come. Jonathan spook fact number 38: He hates three inch disks. Hmmm.

The hit parade

ELSPA PENGUIN CHARTS · COMPILED BY GALLUP · SPONSORED BY PENGUIN BISCUITS

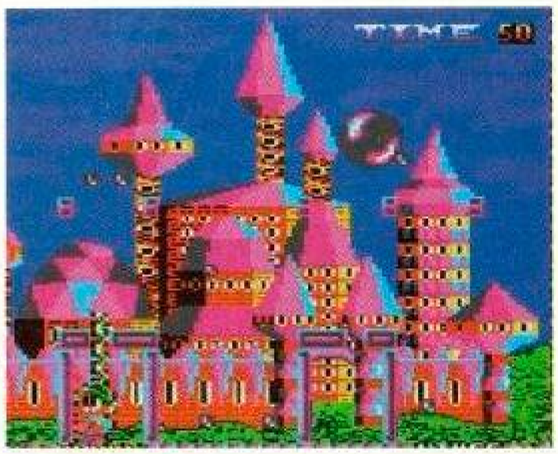
1 NEW ZEALAND STORY
Hit Squad • 76% (AA73)

2	RAINBOW ISLANDS • Hit Squad	89% (AA78)
3	STREET FIGHTER • Kixx	Not reviewed
4	DIZZY D T RAPIDS • C/Masters	74% (AA76)
5	CRYSTAL K DIZZY • C/Masters	72% (AA88)
6	MAGICLAND DIZZY • C/Masters	85% (AA64)
7	PITFIGHTER • Hit Squad	Not reviewed
8	FUN SCHOOL 2 U 6 • Hit Squad	N/reviewed
9	FUN SCHOOL 2 6-8 • Hit Squad	N/reviewed
10	QUATTRO SKILLS • C/M	Not reviewed
11	USA TT WRESTLING • Zeppelin	74% (AA85)
12	KIDS PACK 2 • Alternative	Not reviewed
13	FUN SCHOOL 8+ • Hit Squad	Not reviewed
14	TRIVIAL PURSUIT • Hit Squad	80% (AA89)
15	DOUBLE DRAGON 2 • Kixx	Not reviewed
16	4 GAME PACK • Atlantis	Not reviewed
17	ROBOCOP • Hit Squad	84% (AA78)
18	ITALIA '90 • Tronix	Not reviewed
19	F16 COMBAT PILOT • Action 16	90%
20	SUPER MONACO GP • Kixx	65%

Reviewed this month



CRAZY CARS 3 .... 67%



ZAP'T'BALLS 85%
THE ENFORCER 88%
SKEET SHOOT 71%

Action replay

THIS MONTH'S RE-RELEASES

PIPEMANIA	85%
VENDETTA	30%
ST DRAGON	35%
HUDSON HAWK	90%
TRIVIAL PURSUIT	80%



Zap 't' Balls

Sentinel ■ 41 Enmore Gardens, East Sheen, London SW14 8RF ■
£16.99 • 128K disk only (may not work on some machines)

Who needs a Plus? Simon Forrester plays a CPC Pang clone from Austria that will blow your mind – it's stunning!

Rave

One of the main influences on the CPC these days is the foreign demo scene (see the special feature this issue), with teams such as Logon producing little sideshows that continue to amaze everyone as to just what Arnie (Uzi!) can really do. So, how do these pretty (but essentially pointless) effects work when used in a game?

Well with *Zap 't' Balls*, here's our chance to find out! The game is a *Pang* clone written by Elmar Krieger, and introduced to Britain by a previously unheard of team headed by ex-*CPC Attack!* writer Richard Wildey, under the name of Sentinel.



Part of the amazing intro sequence. The programmer is also a demo-writer...



The backgrounds are all highly colourful and very well drawn.

The first thing that hits you is the loading sequence. It's a treat to watch, featuring a scrolling message, a 3D chess board, a stunning logo, and some truly stunning men made up of bubbles (in keeping with the theme) waving their various bits around (*er, limbs, that is – ed*). The worlds (sections to us uneducated serfs) are selected from this part, which serves as the main game menu, though codes are needed to access all but the first world (And we've got every single code and you can't have them – hardehardehar!).



Some of the puzzles are fiendishly difficult to tackle. Yes, those are ladders...

Once you've picked your jaw off the floor, you can get down to playing the game – and you'll want to! Anyone who's ever fed their week's gobstopper allowance into a hungry arcade machine to play *Pang* will not be disappointed with this game, as it's just as fast, fustrating, furious, and flabbergasting (getting desperate for alliteration here!) as its commercial Capcom counterpart.

The game is based around the idea of a blokey with a sort of sproingy gun thing shooting bubbles bouncing overhead, which split, and split, and split, getting smaller each time until finally, they vanish completely – and that means a completed level! Oh, and needless to say, if any one of these bubbles touches you, you're dead...



Look at all those balls! You've got about 0.00001 of a second to live!

Why is it that all the really good games are based on a really simple idea? Each level is, of course, more challenging than the last, with platforms, ladders, shootable blocks, snowballs (wait and see!) and other such hazards.

In case you're wondering what happened to all the mind-numbing, spine-tingling, ball-crunching special effects you saw when you first loaded the game, they don't stop at the loader. The options menu (toggling music and such) is a myriad of colour and wavy lines... er,though that does make it a little difficult to actually *read.*

But with a game as expertly written as this, why is it distributed by a homegrown group instead of a major distributor? As it was written specifically with the CPC in mind (now there's something new!) and by an almost underground author, it has no conversion prospects, and wouldn't be attractive to a major software house.

Some games are just flashy demos with some gameplay tacked on. Some are dull efforts with a jazzy loader. *Zap 't' Balls* is neither. It has both amazing graphics and real gameplay.

Compatibility probs

The one thing that we were warned about by Sentinel was a slight problem of compatibility on some machines, depending on the CRTC chip type. The basic situation is as follows; *Zap 't' Balls* runs on MOST normal CPCs, though the Plus machines could have problems.

After further investigation it appears that, according to the author, some disk drives may run into difficulty loading the game as well. On the 6128 Plus in the office, the only problem we had was that we couldn't bypass one of the parts of the loader, which maybe suggests that this is quite a bit of a grey area. But if you do have problems, Sentinel promise to refund you fully.

VERDICT

GRAPHICS — **90%**
If you've got the right machine (see the box on compatibility problems), prepare to be blown away!

SONICS — **80%**
A nice opening tune that can admittedly be repetitive at times, and some nice in-game effects.

GRAB FACTOR — **85%**
The first few levels are introductions so that you don't get put off by an unbelievably awkward game.

STAYING POWER — **93%**
An ingenious code system means you won't get bored by having to repeat early levels.

Compatibility problems let this game down, but if you do get it working, you'll be playing it 'til you drop!

RATING 85%

AA SMALL ADS

For Sale

TAPE GAMES FOR SALE. All excellent condition, from £3. North and South, Heroquest and Wrestle Mania etc. For list, send SAE to: Paul Williams, 117 Pinehurst Avenue, Liverpool.

PROTYPE DISK and manual, £15. Stop Press disk and manual, £17. Teletext receiver and software, £60. All in original casing. Write first: Jan Balling, Baunevej 139, DK-2630 Taastrup, Denmark.

BARGAINS! Stop Press and mouse, £30. 3.5" second disk drive and software £40. DK Tronics Speech Synthesizer £10. Phone (0582) 609533 and ask for Andrew.

AMSTRAD CPC464 colour monitor, dot matix printer, joystick, extra 64K memory, Multiface 2. Over 120+ games, mouse, Interface, all for £200 o.n.o. Tel: Alex on 081-660 2752.

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AMSTRAD USER magazines. Every issue except first issue, 88 issues in total, with 6 binders. Also every issue of Computing with the Amstrad, 48 issues all in binders. Offers, buyer collects. Tel (0742) 455458.

GENERAL KNOWLEDGE quiz. Hundreds of questions on lots of different subjects. For your copy send a blank formatted 3" disk, stamped SAE and £2 to: Carlton Young, 189 Westgate, Almondbury, Huddersfield HD5 8XN.

CPC464 COLOUR, Multiface 2, Emu, Lightpen, 2 joysticks, Maxam manuals, 10+ books, joystick splitter, over 200+ games, AA 4-86, plus 50 other mags, cover tapes, £275 o.n.o. Phone (0602) 289059 after 6pm.

6128 PLUS COLOUR monitor, Matrix Spreadsheet, Multiface 2 Wordprocessor, over £100 worth of games. Including Lemmings, Titus the Fox, F-16, Sim City, Prince of Persia. Less than 1 year old £350 o.n.o. Tel: Bath (0225) 333016.

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DJ BASIC ON THE TURNTABLES. Scratches, samples and drawing. All Hip-Hop. Send SAE, tape and £2 for all you homeboys and flygirls. Simon Peters, 41 Bedford Road, Yeovil, Somerset BA21 5UG.

AMSTRAD 6128, needs slight attention. Multiface, joystick, tape recorder, all leads, green screen monitor, and 300+ games. 60+ magazines and modulator. All for £300 o.n.o. Tel (0484) 851158.

DISK DRIVE, DDI plus CPM only £70. Also games for sale. £5 each, such as Prince of Persia, Dizzy Collection, Lords of Chaos. For £7, Hollywood Collection, Cruiser Joystick. Phone (0994) 484508.

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AMSTRAD CPC464 with colour monitor, instruction manual, joystick, over 75 games and 18+ issues of Amstrad Action. Worth in excess of £650, bargain at only £200 o.n.o. Phone Paul (0908) 542771.

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MASSIVE AMSTRAD CPC sale. Hundreds of magazines, listings, software, hardware, peripherals and Amstrad Action memorabilia. All must go. Write to: Adrian Sill, 19 Sherwood Drive, Skellow, Doncaster, South Yorkshire DN6 8NY.

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CPC464 MONO plus TV Modulator, DDI disk drive including system disk, manuals and software. Will sell for £175 o.n.o. Phone (0625) 619266 (Cheshire).

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AMSTRAD CPC464 mono monitor, manuals, joystick, over 30 games including Rainbow Islands, Golden Axe etc. Also included, a number of magazines and cover tapes, all for £100. Tel (0869) 320690. No offers.

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AMSTRAD CPC6128 colour monitor CPM, Masters manual, Protext, Prospell, Utopia, ROM 5. Multiface 2, Maxam 968, Firmware manual. Max desktop and mouse. 44 disks, 9 Bonzo disks, £395, will split. Tel: 081-688 3950 (Croydon).

Wanted

BARDS TALE wanted. Must be on disk. Will pay. Phone (0232) 622967 and ask for Barry, anytime after 5pm.

HAS ANYONE GOT a copy of Turtles 2. I will give you two of my games if you can find it on tape. Send your address to me for a list. Ryan Stephenson, 49A Trowley Rise, Abbots Langley, Herts WD5 0LN.

CPC6128 SOFTWARE on disk. Educational and games. Tel (0404) 813085.

DESPERATELY NEED WWF 464 tape only, willing to swap Super Monaco, GP, or others. Please call (0623) 748558 anytime. Also looking for a penfriend, age between 12-16. Must have a 464.

WANTED: BUY OR BORROW Instruction book for DK'Tronics Speech Synthesizer. Please phone Stephen on (0842) 878766.

WANTED: INSTRUCTION manual for Vulcan War game. I have a CPC464. Send to: Aidan Banks, 12 Cranford Gardens, Chandlers Ford, Hampshire SO5 1PU. Tel (0703) 270565.

LONG LOST GAMES wanted urgently. Rack-it, Hewsons' Ocean Conquerer, Firebirds' Viking Raiders, Micromegas" Codename Mat II. Phone (0803) 663515, or write to: 43 Langs Road, Preston, Paignton, Devon TQ3 2HH.

WANTED: AMSTRAD Action magazines. Issues 70 - 74 inclusive, complete with covertapes. Reasonable prices paid. Tel (0582) 660652 evenings.

WANTED DESPERATELY on disk, for the Amstrad CPC6128. Tetris, and a good cheat for Skweek and The Pawn. Thank you. David Ledsham, 20 Belgrave Road, Hounslow, Middlesex. Tel: 081-570 7124.

HAS ANY PERSON got a copy or spare version of CP/M on 3.5" disk. I will pay for disk, postage and packing. Richard Hall, 52 Vernon Road, Brampton, Chesterfield, Derbyshire S40 1EP.

JET SET WILLY and Manic Miner for Amstrad CPC464. Cassette only, will swap from list. Please send SAE. Tel (0489) 578298.

WANTED: STRIDER and Target Renegade (both disk). Will swap for Prince of Persia, Vindicators, Ruff and Reddy and Top Cat (all disk). Send SAE and games to: Keith Scanlon, Carrigans, Lower Ballymote, Co. Sligo, Ireland.

WILL SOMEONE SWAP Prince of Persia, Hitchhikers Guide, Sim City, disks for various tape games including Turrican 2, Switchblade, Simpsons. Others available. Ring Rachael (0222) 530332.

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WANTED: DDI-1 disk drive with Interface. Also DK'Tronics 64K RAM pack and software required. All must be in good condition. Phone Mr Butler on (0642) 487888.

CPC6128 *- Driller game wanted.* Preferably disk but tape will do. Will pay a reasonable price. Tel (0264) 365895.

WANTED: INTERFACE for 464 A drive disk. Must be working order. Phone (0705) 382956 early evenings.

WANTED: LEMMINGS, Sim City, and Mini Office II or Multiface II for CPC464. Will swap for 120 original tape games or AA's No.40 to present, with all tapes. Phone Jeff (0684) 275476 anytime.

Services

TUCK PD - for a stock list and more details send an SAE to: Matthew Tuck, 15 Ravencar Road, Eckington, Sheffield S31 9GS. Now with over 50 disks full!

CPC, C64, software, books, mags, hardware. Also, free game finder service. Send wants list plus maximum price. Include telephone and SAE for lists. Simon, 15 Norcott Road, London N16 2BJ.

User Groups

COMING SOON! Progware Fanzine is to hit the streets in 1993! Originally to be called Extreme. Look out review in Public Image. Phone Robert Masson (0602) 631051 for information.

FREE - A COPY of our disk based CPC Magazine, for serious CPC users. Send blank disk plus SAE to CPC Domain, 20 Montague Road, Saltford, Bristol BS18 3LA. Tel (0225) 873988.

Other

WILL SWAP Terminator 2 and F-16 Combat Pilot (boxed) for Turtles 2, Smash TV or Hudson Hawk. All must be on disk. Phone (07687) 73961 and ask for Sam between 5pm and 9pm.

SIGNAL SOFTWARE PD now has over 50 selections. For catalogue send SAE to: Signal Software PD, 83 Longleat, Great Barr, Birmingham B43 6PY. Only 25p per disk side. Hurrah!!!

COULD ANYONE out there transfer a driving school accounts program written in Commodore 64 Basic to run on CPC6128? Geoffrey Greenway, 45 Oakfield Road, Malvern, Worcs. Tel (0684) 573751.

HEX HEROES PD Library. An ever growing selection of PD software at 50p per side. Send an SAE to: 24 Woodend Lane, Stalybridge, Cheshire SK15 2SR for a free catalogue.

POWER PD - 50p per disk. Send stamp to address below for catalogue. Bi-monthly fanzine, CPC Power at same address, £1 per issue. Write for details: 33 East Lane, Sandiway, Northwich, Cheshire CW8 2QQ.

SWAP 6' X 1' X 1' fish tank complete running set-up including £30 of fish. Wants Amstrad Computer with colour monitor. Bigger the better. Contact Steve, 32 Brooklans, Brinkworth, Chippenham, Wiltshire SN15 5BA. Phone (0666) 510786.

AA SMALL ADS



Crazy Cars III

Titus ■ Tel 071 700 2119 ■ £10.99 cass, £15.99 disk

Old racing games never die, they just turn into sequels... Simon Forrester puts on his Nomex overalls and goes for a test drive

"Life in the fast lane can be crazy". Thats what it says on the nice glossy box. And the nice glossy poster. And on the tape. And in the manual, in English, French, German, and Italian...



Oh no! It's the cops! And pretty ugly cops by the looks of the piccy (top left).

Turns out it's a quote from this guy called "Terror of the Tarmac". The question is, does this apply to *Crazy Cars III*?

Let's start from the beginning. On the back of the box, there are loads of screen shots of various courses, cities, tunnels, chasms, deserts, etc. Though it should be held in mind at all times that these shots BEAR NO RELATION WHATSOEVER TO THE CPC VERSION OF THIS GAME.

Though passable, you won't be jumping out of your seat in joy at this one. The sonics leave a bit to be desired, and the graphics are the same throughout the game.

And another thing... when racing different poeple, it would be nice if they didn't have identical cars. And why, when you prang another car,

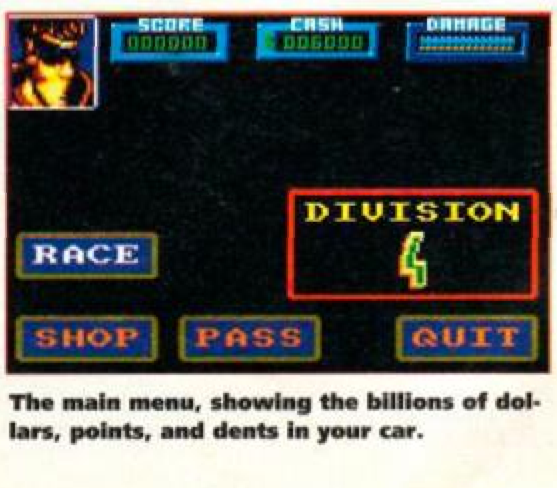


Oh no! It's the cops! And pretty ugly cops by the looks of the piccy (top left).

can you hear this radio interference type noise? We dream of more than one variety of tree. A tear forms in the eye when we remember driving at 300km/h (*Are you sure about all this? – ed*) toward a city AND I ACTUALLY GOT THERE. And have you ever noticed how the roads on these games are always stripey? How else could you tell that you're moving? (*Oh, you cynical old programmer, you! – ed*)

Gameplay wise, this is a standard racing game with a little more besides. You have lots of nice little accessories to save up for, though these ARE NOTHING LIKE THE MANUAL DESCRIBES. AARGH! DON'T YOU JUST HATE THAT? OK. Throw the manual away. It's not going to help you.

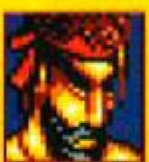
Extra features to drag this above your average game include super tyres (whatever they are), radar detectors (to help avoid the fuzz), speed-ups (go on, have a guess), snow tyres (with some mean spikes), super brakes (for flattening your nose on a windscreen), a roadster (aerodynamic road holding of course), night vision goggles, radar jammers, nitrous oxide booster, and a turbo boost (apparently your



The main menu, showing the billions of dollars, points, and dents in your car.

Dangerous dudes!

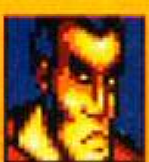
Racing would be no fun without some nice rough competitors and believe me, these are the roughest you'll find...



1 Max Steel, or 'Mad Max' (eek) is the meanest racer on the track. Legend has it he has a habit of bumping other racers off!



2 Richard 'Haircut' Cooper is second hardest. Nicknamed 'The Road Runner', he allegedly knows all the races by heart.



3 'Tricky Frankie' alias Frank Torrino is the shifty one. He'll either trick you into crashing, or try to sell you a dodgy car radio.



4 'Ferocious Felicia' certainly lives up to her name. She's won 73 races, and probably killed an equal number of racers.



5 No, not Uncle Fester, it's Joe Spencer, the biggest cheat around. You won't see him much; he's always taking short-cuts.



6 Sal Capone (that rings a bell) has a strange affinity with the police, as they always seem to arrest his opponents...



7 'Hairy' Mary Wilbur isn't much of a problem. If you can even find the joystick, she'll be choking on your dust.



8 If you're wondering why this guy doesn't look quite as hard as the rest it's because he's you. Nice shades, though...

Wheeling and dealing...

There's more than just driving around avoiding things in this game, you know. Oh yes, there's some strategy too. Like buying goodies to make your car go faster, and checking out the circuit before you race. Oh, and you can also make little wagers on the side...



Quite a nice array of extras for an over-keen boy-racer. They'll cost you, though



It's quite nice to place a little wager on a friendly little jag...



Canny drivers always check the SP before starting a potentially hazardous race...



You've been driving for hours, and you're still no nearer than city on the horizon...

adrenalin will pump for a stomach-churning 10 seconds).

As well as your own car's features, there is a heavy money element involved, as it costs money to enter a race, to repair your car, to rise through the divisions, scratch your nose, etc. This does tend to add a touch more realism to the game, as instead of just being dropped onto a race course, you do get to go for the courses you want (and scream in frustration as you realise you can't afford to enter them).

There's also a nice betting system in which you get forced into giving all your money away knowing full well that you are going to loose hideously anyway. When you've finished betting, somebody says "Let's go!" (*probably in an American accent – gah! – ed*) and you then start racing.

The cops, as mentioned earlier, don't exactly like people topping 300km/h on public roads on a Saturday night, and therefore try their hardest to stop you. Their methods of detection are threefold. They use speed traps, highway patrols, and radar cameras. There are two things you can do when being nobbled. You can either stop and forfeit the race, or have a police car desperately trying to destroy your car before you cross the line (by smashing into you until you blow up).

On top of the other features, there are also different opponents who you will end up racing with at some point or other, each with different tactics, and character traits. It helps if you learn their tricks – even if you don't avoid them, you can still use them on other people.

At first glance, *Crazy Cars III* seems to be patched together well, although the collision detection is quite poor (try driving through a bush sometime). The game does move very smoothly, and seems a definite improvement over previous versions.

So how does this game measure up? It's simple. The betting sequences, race prices, division rises, and cash crises do not a good game make. It either grabs you by the short and curlies or it doesn't. You either go back to play it time and time again or you don't (*where's this man's contract? – ed*).



Time to blast past the competition, who all drive identical-looking cars... booooring!

Admittedly, it does hold up as a standard race game, but that's about all, and that format is more than a little tired these days. However, being smooth and playable, it could find a nice little niche in your collection as a damned good racing game – but don't expect anything more.



OK OK, so my steering needs a little work! 'Herbie Goes Bananas' springs to mind. But then this car doesn't exactly handle like a Testarossa (that's an expensive Ferrari, by the way).

VERDICT

GRAPHICS 79%
Nice to start with, but a little repetitive, with absolutely no change from course to course.

SONICS 39%
These aren't all that effective, and end up detracting from the game quite a lot.

GRAB FACTOR 66%
When you start, *CC3* does seem quite fun, with mastery of driving skills keeping you playing.

STAYING POWER 50%
But after you realise that's all there is to it, you'll probably play for about five more minutes.

Frankly, despite initial appearances, CC3 is no more than a distinctly average race game.

RATING 67%

The light fantastic

Remember the old Amstrad lightgun? Well forget it again straight away, because Trojan's Phazer is miles better. What's more, the company is also committed to the Amstrad cartridge format. It should be – it makes them! Simon Forrester sets his sights on two new – and affordable! – cart games

Shoot to thrill

Remember your old Atari consoles? Amongst those cheap joysticks and paddles, you probably had a lightgun hidden away in the corner. Remember skeet-shooting? Well, this technologyhas been hauled forward into 1993 by Trojan Software, who have produced their own lightgun – the Phazer – plus two games. And they're on cartridge...!

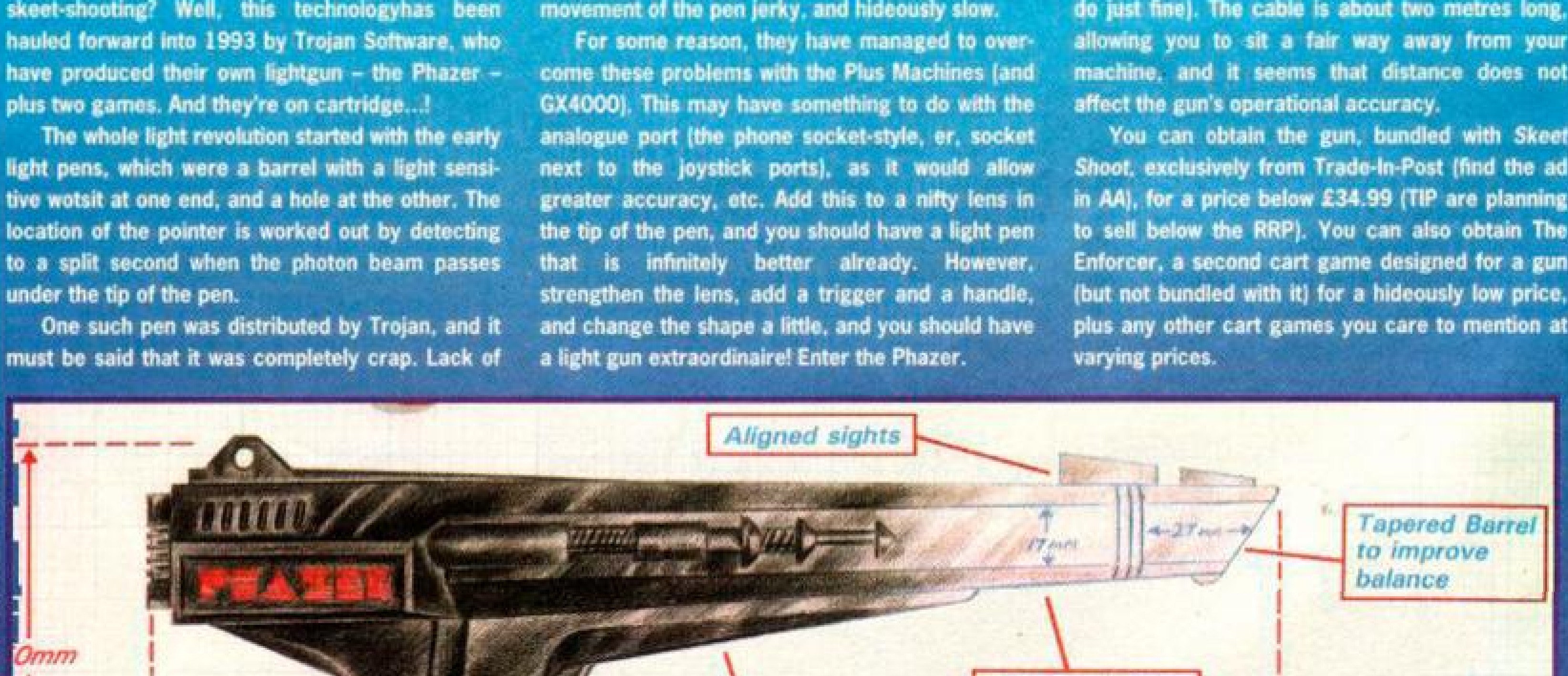
The whole light revolution started with the early light pens, which were a barrel with a light sensitive wotsit at one end, and a hole at the other. The location of the pointer is worked out by detecting to a split second when the photon beam passes under the tip of the pen.

One such pen was distributed by Trojan, and it must be said that it was completely crap. Lack of Amstradian forsight (or even care) when the CPC was produced meant the Trojan pen had to resort to a hideously slow form of detection, making movement of the pen jerky, and hideously slow.

For some reason, they have managed to overcome these problems with the Plus Machines (and GX4000). This may have something to do with the analogue port (the phone socket-style, er, socket next to the joystick ports), as it would allow greater accuracy, etc. Add this to a nifty lens in the tip of the pen, and you should have a light pen that is infinitely better already. However, strengthen the lens, add a trigger and a handle, and change the shape a little, and you should have a light gun extraordinaire! Enter the Phazer.

It fits neatly in the hand (*even in your clumsy slabs – ed*) and has a reasonable sight on the top (if you've never seen a real gun sight before, you'll do just fine). The cable is about two metres long, allowing you to sit a fair way away from your machine, and it seems that distance does not affect the gun's operational accuracy.

You can obtain the gun, bundled with *Skeet Shoot*, exclusively from Trade-In-Post (find the ad in AA), for a price below £34.99 (TIP are planning to sell below the RRP). You can also obtain The Enforcer, a second cart game designed for a gun (but not bundled with it) for a hideously low price, plus any other cart games you care to mention at varying prices.



Trojan's Phazer looks remarkable similar to the old Amstrad lightun, but it's been vastly improved and is now much more accurate.

Skeet Shoot

Trojan (comes with Phazer) ● 0554 777993

We call it clay pigeon shooting. It's the Americans that call it 'skeet-shooting'. Oh, and Trojan software. It's disgraceful what's happening to the English language...

"Pull!" What the hell is that?

"Pull!" The tug-of-war solo practices?

"Pull!" Someone having a tapeworm removed?

"Pull!" Oh. It's Rod in a deerstalker. Well, you know what they say, he with the biggest gun has the quietest bullets.

Seriously though, *Skeet Shoot* is good. It has no plot, no goal other than to visit all of the locations (which, incidentally, are represented by some beautifully drawn backdrops), and no special effects. It is plain and simple skill, practice, and fun. The aim of the game is to shoot the skeets. You have a time limit in which to shoot the required amount, and a limited supply of bullets per skeet. Thats it.



Watch the birdie! More to the point, shoot those eggs (but not the silver ones).

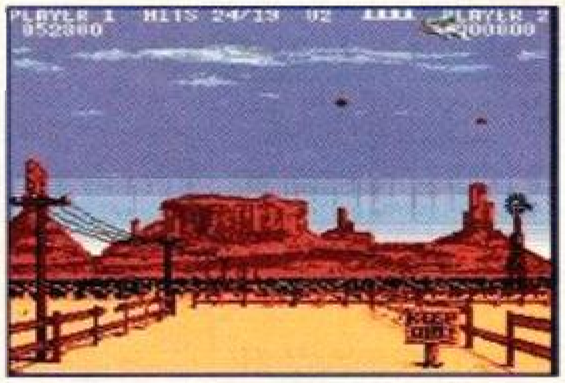
Having said that, there's plenty of nice little features within this rather limiting format, the first being bonuses. On all levels, every now and again, a little goose flies along the top of the screen, releasing eggs when shot. These eggs, when they in turn are shot, give special bonuses, the most useful of which is extra time. Extra point bonus coins fly up from the ground occasionally, so we'd shoot those too if we were you.

Skeet Shoot consists of six levels, each broken up into two normal rounds, and one bonus round. The bonus round sees the geese (the ones you tried to horribly maim – remember?) flying overhead, dropping more eggs which must be shot – though you'd better learn to discriminate between gold and silver ones, as the latter detract from your score.

On top of these extras, some thought has obviously gone into entertaining (distracting) you from the main objective. On some levels, this chuffing great spaceship flies through Monument Valley, or people are busy duffing each other up at Mount Fuji.

One final thing that may or may not impress you with is the way you enter your name on the high score table (*Oh, you saw it then, did you Simon? – ed*). It involves shooting one of four icons to scroll the letters left or right, select them, and finish. You that you might have trouble entering your name if you're crap, but if that's the case, you won't ever get the chance to enter it!

This game is the perfect companion for your light gun. The graphics are nice, the sonix aren't intrusive, the difficulty is pitched just right, and all in all it's a good 'un!



Skeet-shooting in Monument Valley. Cool!

VERDICT

GRAPHICS 87%
Nice backdrops and the skeets, birds, bonus coins etc all move really smoothly

SONICS 82%
Very good gunshot-style sound effects, but not too much else. But then what do you need?

GRAB FACTOR 93%
You'll pick it up in an instant yet play it for hours. It's simple, but it's also dead addictive

STAYING POWER 76%
OK, so it's not long on gameplay. Simple arcade fun can still keep you happy for a long time, though

A simple game that's brilliantly executed – excellent

RATING 85%

The Enforcer

Trading Post ● 0952 462135 ● £TBA cart

Dying for a drink? (Uh oh, joke coming up). You will in this game!. (Thought so) It's Chicago, it's 1932, and you're right in the middle of a Prohibition gang fight...

Your job is to gun down dozens of bad guys as they pop up from beind trash cans (that's American dustbins), peer out of windows and generally hide like cowards.



Shoot! Shoot them all! Great fun, but hard.

Unfortunately, these gangsters also carry guns. If you happen to shoot any civillians (you dirty dog you!) all you will loose is points (*I like to see morals in games – ed*), and this is extremely inadvisable as in this game points aren't all that easy to come by...

The game is played *Operation Wolf* style, though the screen won't move – you have to kill a pre-determined number of goons before you can progress any further down the street. There are also nice little bonus levels in between locations, involving loads of bottles of booze and some blokeys trying frantically to pack it. Your job here is to shoot the whiskey before it gats packed. Missing one bottle means the end of the bonus level (a tad harsh), as does shooting a (legitimate) bottle of water.

The Enforcer is hideously difficult. Getting on to a bonus level is damned near impossible, and these levels do not last for long anyway.This is a nicely presented game, with nice sonics (what little there are) and nice graphics, but marred horribly by the fact that it is way too difficult.

VERDICT

GRAPHICS 71%
Good, but nothing special given that the extra hardware of the cartridge machines is being used

SONICS 50%
Again, nothing especially riveting here. Lots of shooty noises, but then you'd kind of expect them...

GRAB FACTOR 80%
Fast and (initially) addictive gameplay gets you hooked at the start, even if you don't get very far...

STAYING POWER 67%
...and you never will, either, because this game is seriously difficult. Those bad guys are too fast

Quite a nice-looking game, but there's not a lot of depth to it and it really is rather difficult

RATING 88%

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Cheat Mode

Are you stuck in a game? Tearing your hair out? Phil Howard to the rescue! He's here with a whole sackload of cheats, tips, maps and solutions for gamesters everywhere. Send YOUR tips to: Cheat Mode, Amstrad Action, Beauford Court, 30 Monmouth Street, Bath, Avon BA1 2BW. Remember, the best ones win a tenner!

Seymour Stuntman

£10 WINNER

Keypress king Paul Harper of Folkstone has surfaced again with a couple more real crackers for the new year, the first is for *Seymour Stuntman*. On the title screen, hold down the keys SONJA then start the game while still holding them down – you will get invulnerability (use this cheat and Sey-more – Paul suggests!) (*Groan*.).

Reckless Rufus

Alternative's *Reckless Rufus* is the second game to fall at the Harper hand. Hold down the keys VIRGO and start the game whilst holding them down for invulnerability. The down cursor arrow quits the game, then press space or Fire on the joystick to restart the game, which transports you to a different level.

Stryker and the Crypts of Trogan

Alex Cochrane of Wishaw has discovered some absolutely fabulous keypresses. The first nine (yes, nine!) are for *Stryker and the Crypts of Trogan*, and are entered into the hi-score table:

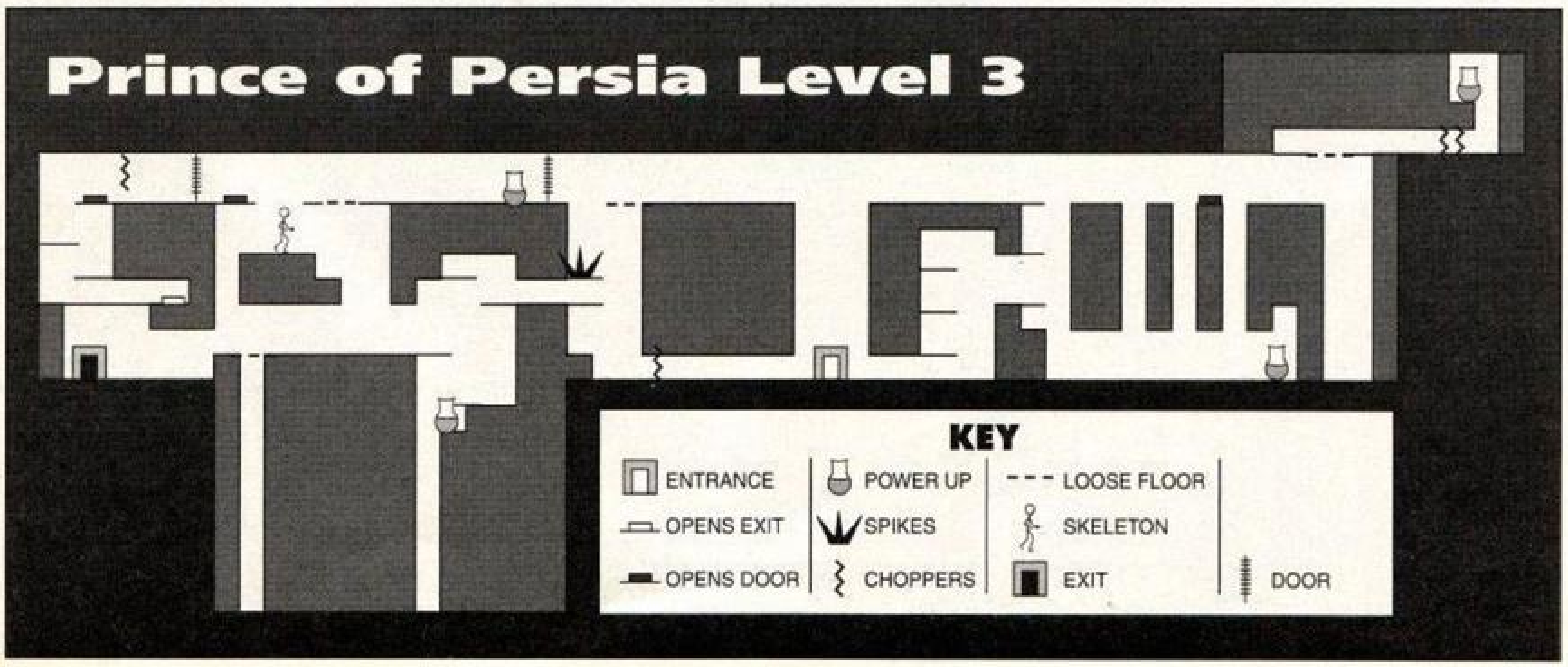
SIMPLICITY Difficulty (1=easy – 10=hard)
SIMBURGER 30 lives
SIMMERING Start on level two
SHIMMER Start on level three
SIMPER Start on level four
ZIMMER Start on level five
SIMPOINTS 100,000 points
SIMATERIAL Reset all cheats
SIMMER OFF Start back at level 1

Double Dragon 2

Simon Lawrence of Troon has supplied an update to the *Double Dragon 2* cheat that was in *AA*. Pause and type RUN LIKE HELL to initiate the cheat. Then if you press TAB you skip a level. Also, if you press CTRL you kill everyone on the screen.

Space Crusade

Should you be interested in getting extra honour badges in *Space Crusade* then David Ashley-Smith of Worthing has the answer. Enter mission 6 (purge and withdraw), move your commander out of the docking claw (only 1 space is necessary) and click the End of Go icon. Keep ending your go without doing anything until you get the 'master controls'. When you do, open the outer doors and escape, for doing this you will be awarded one honour badge. You may repeat this as many times as you like, but it is a good idea to save your chapter each time because if you don't manage to get the master controls you will be stripped of all honours. *cont. on p53*



Tombestowne – complete solution

Now here's an oddity!, over the last couple of months I've had two people requesting a cheat for the very old Amsoft game of *Tombstowne* (What is this, a revival?).

Anyway deep in the recesses of my filing system (Big Box under the table) I just happened to have a solution to the said game which never actually found its way into print and was sent in by D. J. Castleton of Norwich. I know it is an incredibly old game, but who am I to go against the tide of popular demand? Well, at least 3 people are happy!

1 Start in the castle of Tombstowne and walk right to the great hall.

2 Jump through the door into Could this be a Trap.

3 Walk over to the hole and jump over, take the mousetrap.

4 Jump through the door into Down Under, go down the stairs into the Cellar.

5 Go to the barrels, take the tap and go back to the Great Hall.

6 Walk right to the next room and through the door to large.

7 Take the stool, walk left to the Kitchen and drop the stool next to the table.

8 Jump on the stool then on the table, take the cheese and drop it on the mousetrap.

9 Go back to the Hall, and walk right, collecting the 1st page, to the stairs.

10 Jump up the stairs and walk right collecting the 2nd page.

11 Jump through the door with the umbrella next to it. You are in the Library.

12 Walk left and take the step, collect the 3rd page.

13 Go back to the Hall with the umbrella next to the door.



14 Walk right to the end of the Hall and jump through the door on your left (bedroom).

15 Walk right to the table and take the yellow key. Walk right to the Bathroom, drop the tap and return to the end of the hall.

16 Walk right to the broken stairway and drop the step.

17 Go up the stairs to Beware of the Rats and drop the mousetrap.

18 Walk right to Burning Hall and jump through the door (Master Bedroom).

19 Walk right and take the book. Return to the Library.

20 Walk left, jump through the wall and walk left, collecting the 4th page.

21 You are in the Armoury. Walk right to the barrels and jump up.

22 Take the shield, go back to the Library and drop the book.

23 Walk right and take the matchbox, go to Beware of the Rats.

24 Drop the matchbox and walk right into the next room.

25 Jump through the door to the Study, walk left to the table and take the crucifix.

26 Go back to the Castle and jump through the door. Walk left to the Tower.

27 Collect the 5th page and go inside the Tower.

28 Walk left and jump, then right and through the door.

29 Walk right and collect the 6th page.

30 Take the balloon and drop the crucifix, then go back to the Master Bedroom.

31 Walk right to the Bathroom, take the grey key and drop the balloon.

32 Go back to the inside of the Tower, walk left and jump up.

33 On the Battlements jump up over the cannons.

34 At the end of the Battlements drop the shield and collect the 7th page.

35 Jump through the door and into the Hut. Collect the 8th page and take the rope.

36 Go back to the end of the Battlements and drop the grey key.

37 Go back outside the Castle and go down the Well.

38 At the bottom of the Well collect the 9th page and take the bucket.

39 Drop the rope and return to the Bathroom.

40 Take the tap, go to the end of the bath and drop the tap. Your bucket is now full of water.

41 Go to Beware of the Rats, take the matchbox, go to Burning Hall and collect the 10th page.

42 Drop the bucket, go right and jump up the stairs.

43 In the Hall, take the candle and drop the matchbox. The candle is now lit.

44 Go to the Study and through the door.

45 Jump over the hole in the Darkest Room and go down the stairs.

46 Collect the 11th page, walk right and jump over the hole.

47 Take the trap door handle, drop the candle and go back to the Broken Stairway, then go left to the end of the Hall.

48 Jump through the door on the right to the Gallery.

49 Walk right, take the rock and make your way back to Could this be a Trap.

50 Go down the hole and walk right from the Mine Shaft to the Curse of Spits.

51 Walk right to under the rocks, drop the rock and take the hammer.

52 Go back to Could this be a Trap and collect the 12th page.

53 Go to the end of the Hall and jump through the door to the Dining Room.

54 Walk right to the mirror, jump up and take the blue key.

55 Go back to where you got the candle from and walk right.

56 Jump up the stairs and through the door to the Attic.

57 Collect the 13th page and walk right to the Forbidden Room.

58 Collect the 14th page, take the boot and go back to the Attic.

59 Take the oxygen tank, drop the blue key and go back to the Curse of Spits.

60 Walk left and collect the 15th page and go to the Top of Flood.

61 Enter the water to Bottom of Flood and collect the 16th page.

62 Stand in the middle under Exit Out and drop the boot.

63 Go back to outside of the Castle and walk left to the Cauldron.

Still with us? You are? Well that means you've completed the game... hurrah!

When you have collected 4 honour badges, don't trade them straight away, but go to 'Set-up' and highlight all the eqipment icons. Then go to 'Status' and trade your badges to go up in rank. In this way you will keep all of your equipment, even though you have no badges.

Sonic Boom

Not content with that Alex has found another cracker for *Sonic Boom*. Type CONIS into the hi-score table for infinite lives. Thanks, Alex, for some pretty neat cheats.

Drehddris

A number of people have found a little cheat on the cover tape game *Drehddris*, including Stephen Matthews of Kings Lynn, Simon Crask of Pitsford, Sebastian Holt of Margate and Jonathan Last of Surrey, Andrew Conlan & Kevin Reid of Larbert and Ben Watkins of Hinkley... Change level to 4 or over then while playing press the up cursor key until you are at level 10 and the shapes come down very slowly.

Zap T' Balls

Mentioned a couple of months ago in Tim Blackbonds PD section was a pretty neat *Pang* derivative called *Zap T' Balls*. (We've reviewed it this issue, Phil, don't you read the mag? Oh, right, not before it's printed. Ah. S'pose not...) Well, Radek Kabala of Winnweiler in Germany (it's distributed by a German CPC mag over there) has it, and has supplied the codes to get you to different levels:

1 ....Nothing (it is the first level!)
3 ....EGS
5 ....GCS
7 ....DJH
9 ....BSC
11 ....BMC
13 ....GPA
15 ....OAS
17 ....CBS
19 ....GOS
21 ....MTI
23 ....AST
25 ....TMP
27 ....WAR
29 ....END

The Grand National

John Oldenburg of Cardiff has found a built-in cheat whilst playing *The Grand National* by Cult. If you sell one of your horses at auction and buy it back immediately you can amass lots of money – e.g. sell at £10,000, buy back at £4,500.



Out Run Europa

Agnello Gurarracino of Croydon has been out running with *Out Run Europa* and discovered that on the motorbike level, should you ever need extra turbo tokens just bring your motorbike to a dead halt then wait about 7 seconds – and watch them appear like magic on the road.

Multiface Marvel!

Ken Wood of Blyth, and William Huddleston of Innerleithen, Lee Rouane of Chesterfield, and Adam Bakewell of Thornton have been frantically searching out these Multiface pokes...

NAME		ADDRESS	POKE	EFFECT
Hi Rise	(t)	297D	00	Inf lives
		2A7D	00	Inf glue
On the Run	(t)	B2CB	00	Inf time
		92C1	00}	Inf smart bomb
		9303	01}	
Devils Crown	(t)	863B	00}	Inf Oxygen
		863C	00}	
		863D	00}	
Elidon	(t)	749F	00	Inf lives
Cauldron	(t)	9CB3	00	Inf lives
P47	(t)	27DC	00	Inf planes
Satan	(t)	6DEB	00	Inf lives
		7C4C	C9	Inf time
Chevy Chase	(t)	24E7	00	Inf time
Impossible mission	(t)	0ED7	C9	Robots harmless
		2632	21	Inf password
Vindicators	(t)	07D3	F0	240 lives player 1
		07BB	F0	240 lives player 2
		1667	C9	Inf fuel
		158F	00	Inf stars
Dynamite Dux	(t)	8B07	A7	Inf lives
		8D29	00	Inf ammo
Double Dragon	(t)	393D	00	Inf lives
		384F	00	Inf time
Samsh TV	(d)	1D5C	00	Inf lives
Outrun Europa	(d)	EE81	00	Inf time
		FF24	FF	255 credits
Defenders OE	(t)	8461	18}	Inf Lives
		8462	08}	
Switchblade	(t)	30AC	00	Infinite Lives
		252B	00	Infinite Weapons
Red Heat	(t)	9F01	00	Infinite Energy
		95DB	00	Infinite Bullets
		867E	A7	Infinite Lives
Turbo Tortoise	(t)	60DB	00	Infinite Bullets
Arctic Fox		8049	00	Infinite Shields
Ikari Warriors		5755	00	Infinite Lives
Ninja Commando	(t)	83D1	00	Infinite Lives
SDI	(t)	3A49	00	Infinite Lives
Captain Planet		7CD6	00	Infinite Lives
Bart Simpson		3AE4	00	Infinite Lives
		2016	00	Infinite Time
Shadow Warriors		FCDF	00	Infinite Credit
Lemmings	(d)	BD2F	00-14	Number of Climbers
		BD30	00-14	Number of Floaters
		BD31	00-14	Number of Bombers
		BD32	00-14	Number of Blockers
		BD33	00-14	Number of Builders
		BD34	00-14	Number of Bashers
		BD35	00-14	Number of Miners
		BD36	00-14	Number of Diggers
		B726	no	Number of lemmings OUT
		B727	no.	Number of lemmings IN

The Multiface Way

The Multiface 'freezes' your CPC's RAM and allow you to fiddle about with the game code and alter the way the game works. Here's how you do it...

1 Load the game as normal
2 Press the red button on the Multiface
3 Press 'T' for Tool
4 Press '*' to make sure you select the code
5 Press 'H' for Hexadecimal input
6 Press Space for input
7 Type in the Address (4 characters, e.g. 3A7C)
8 Type in the Poke (2 characters, e.g. A7)
9 Press Return
10 If there is more than one poke, go to (6)
11 Press Esc to get back to the menu
12 Press 'R' to return to the game

Titus the Fox – complete solution

£10 WINNER

Michael Ricciomini of Teddington has completed Titus the Fox, and just to prove it here is his complete solution to the game! Now you've got no excuse, have you?

Code 1 5772
Code 2 F8F4
Code 3 1D76

Press Capslock to see your health

Level 1

- Walk right. Pick up milk bottles and kill workers with them.
- Jump on Metro box and collect lanterns and Padlock.
- Walk right. At the next house there are 5 objects.
- Avoid the first monkey, use the objects to kill the second monkey and dogs.
- Collect the padlock above the lamppost.
- Pick up the flowerpot and use it to kill the Guardian.

Level 2

- Walk right to box and jump on it.
- Jump up onto the ledge above the door.
- Jump up, avoid diner, run left and jump to collect the paint.
- Jump right, kill diner and jump right onto scaffolding.
- Walk right go up the ladder, jump left, go up the ladder, jump left, go up the ladder, crawl right go down the ladder.
- Fall left and collect lanterns.
- Go down ladder walk left, go down ladder, walk right, get the lanterns.
- Jump right, get the paint, go right, kill the dogs, go right collect the padlock.
- Enter the sewers, exit sewers, get the padlock, go up the ladder.
- Jump right/up walk right jump onto scaffolding, go down ladder, jump right, collect paint, kill the enemy.
- Drop down, get the padlock, get the ball, kill the bee with the ball, crawl right until exit.

Level 3

- Go right and up ladders. Go left and get fruit. Go right and jump over fishes.
- Go right and kill Guardian with fruit. Go up the ladder and turn the switch green. Go right avoid the bee and collect the lanterns above you. Go up the ladder, go left, get the lanterns and fruit and kill the fish with the fruit.
- Get the Padlock. Drop down, go down the ladder, go right, jump to top, turn switch green. Get the fruit and kill the bee, drop down right. Get ball and kill right hand fish. Turn switch green and drop down. jump across water, jump up, get ball, kill bee.
- Go left and up the ladder, left again and up another ladder, get the padlock lanterns and fruit.
- Go to the bottom, kill the bee, get the ball, kill the bee.
- Go left, go up the shaft, get the ball and padlock.
- Go down, kill the bee. Keep going left until you reach the blackness.
- Drop down, go left, turn switch green, get lanterns.
- Goback past the lantern store then drop down.
- Crawl right to the next room then jump right.
- Get lanterns, turn switch green, go left and get the fruit.
- Go to the tunnel and crawl right, kill the bee, get the ball and lanterns.
- Place ball on first thin platform to continue upwards.
- Keep going, get fruit and place it under the ladder to jump up.
- Go up the ladder, get the padlock, go right, get the ball, kill the bee.
- Turn the switch green, go right and turn the other switch green.
- Come back, go down the ladder, get the padlock, go right, turn switch green.
- Come back, jump up/left and drop down, go right and jump on the air cushions and walk to get the lanterns and switch.
- Return to the air cushions and get the ball, walk left, jump left, get padlock.
- Drop down, kill the bees, drop right, crawl right, get ball, go right, kill Guardian, get the lanterns and exit.

Level 4

- Jump up, get one pot, then jump up/right.
- Place the pot on the second scorpion floor, to get to the third.
- Go up the ladder, jump left get the lanterns and pear.
- Come back, jump right and up the ladder, jump left and kill 2 scorpions.
- Go right, get lanterns, jump right and get a pear.
- Drop right and get lanterns and padlock.
- Drop right and land on columns, jump right and kill scorpions.
- Go right and up the chain, drop right getting padlock, drop right again.
- Jump right, go up the ladder, go right and up the chain.
- Go right and up the ladder then right and up another ladder, get the padlock, jump right avoiding the scorpion and get the lanterns.
- Drop down crawl right, getting the padlock, drop down, get the pot, drop right, go right until exit.

Level 5

- Get anvil, climb up first house until roof, then jump off right.
- Keep doing this until the end of level; the technique is the same except that the last house is more difficult. Its a good idea to store up some objects.

Level 6

- Get the ball, go right, and avoid the plants.
- Go up the ladder get the lanterns and ball and go down the ladder
- Drop right, avoid/kill enemies, go right jump over the column and get lanterns.
- Jump right go up the ladder, get lanterns and ball go down.
- Jump right, avoid enemies, get padlock.
- Go right, avoid flowers, go up the ladder jump right, go up ladder go right, drop right go right until exit.

Level 7

- This is quite easy, but beware of enemies who throw things (camel, housewives, and men in pots), use awnings as air cushions, and always go up tall buildings to collect lanterns padlocks etc. Your objective is far right.



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multiface. BUY NOW! IT'S BYE NOW...

When the **MULTIFACE** was launched in 1986, it was an outright winner. No one has ever come up with such a powerful, useful add-on. Labeled *the **ESSENTIAL CPC COMPANION***, this **MULTI**purpose inter**FACE** proved to be an absolute Godsend for the Amstrad CPC users. Remember the first disk drive on the CPC 464? Suddenly the loading took seconds rather than minutes from tapes. Except that there was not much to load - very little had originally been released on disks and there was no facility to transfer programs from tapes to disks.

THE SAVIOUR

This is one area where the **MULTIFACE** saved everything - literally. The black magic box could stop anything any time and **SAVE** it to disk or tape. When the 6128 came with a built-in drive, it was left again to the **MULTIFACE** to do all the transferring - and to perform other miracles...

So, in case you just came from Mars, what does a **MULTIFACE** do? First, it sits at the back of your CPC, its magic button always ready. Press it, and the **MULTIFACE** takes control!

ACTION!

Once in action, it freezes everything and it displays its own menu. Being fully menu-driven and error-trapped, you'll probably never need the full manual that comes with the MULTIFACE. Most operations are also entirely **AUTOMATIC**, so to *SAVE* a game once you stopped it, you just *name* it, insert *disk/tape*, and press a key. You can then *return* and *continue* the program. If you get beaten later on, just reload from where you saved last and play just from there again! No need to go back to the start all the time. Or even better, the **Multiface** allows you to **POKE**

INFINITE LIVES

listed in this magazine and you'll *never* loose. The MULTIFACE comes with a built-in **TOOLKIT** that lets you inspect/alter/dump the CPC RAM. It also has its own 8K RAM and 8K ROM. Many top programs were written with the aid of the TOOLKIT and the extra 8K RAM. And do you like the **screen shots** in this magazine? They are all produced using the **MULTIFACE!**

When we announced earlier that we were to pull out of the 8-bit market, the surge of interest in the **MULTIFACE** was such, that we had to make many more. And not just the MULTIFACE - we also have the one and only disassembler,

THE INSIDER

that lets you ***see*** and ***alter*** what happens any time anywhere inside a ***RUNNING*** CPC program. This is a unique de-bugging/development aid. It comes on a **disk** and loads inside a MULTIFACE. Press the magic button and the **INSIDER** will di-sassemble, find text/code, dump the CPC RAM to printer, etc. Get it at **HALF-PRICE** for **£7.95**! As this goes to press, we still have plenty of stock of both the **MULTIFACE** and **INSIDER**. However we can't go on manufacturing for ever. The **MULTIFACE** is terrific value, in fact more for the *customer* than for the *manufacturer*... So

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We've wound up the full list of budget rereleases (see last month). Now it's time for Simon Forrester to catch up on the latest crop of gaming bargains...

Action ▸▸ replay

Hudson Hawk
Hit Squad ■ 061 832 6633 ■ £3.99

That's never Bruce Willis! It's a cast reject out of *Saturday Night Fever*! Except that John Travolta didn't get attacked by birds (That was Hitchcock) and he didn't nick things (that was the Pink Panther). (*I don't understand any of this – ed*)

The game dispenses with the plot of the film for the most part, instead concentrating on the good bits, such as stealing things, finding other things, and breaking what's left.

Hawk is like *Switchblade*. It's just as good, and doesn't look like a Speccy port even though it's in mode 1. And for a mode 1 game, it's quite tastefully blended.

It scored a Mastergame last March, though it doesn't hold up as well these days – it still comes across as a very good platform game, with quite a few little puzzles involved, but the lack of exploration possible (due to the fact that at first it's a horizontal scrolly) on the first levels makes them a tad repetitive. The game has plenty of variety within these limitations, though, with loads of baddies, laser cannons, birds, dogs, and all the usual platform-romping nasties.

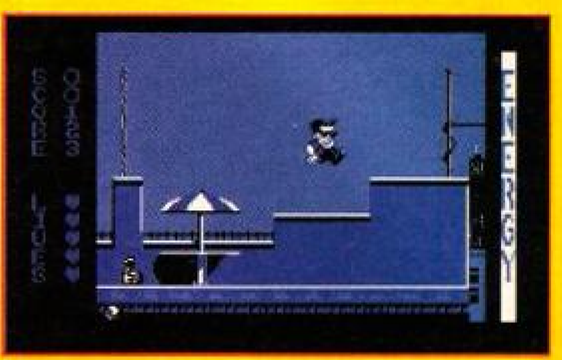
If you want to know much more than that you'll have to go out and buy the game (if you were too tight to buy it the first time round), and



Hawk obliges by posing for our screen grabber, aided by a bird. (Of the feathered kind)



It's "Jump around for no immediately apparent reason time (Maybe we hit Jump ≠ ed)



The very start of the first level, approaching the washing line. How's your balance?

at £3.99 it's got to be a definite addition to your collection, with nice sonix, smooth grafix (a slightly jerky scroll though) and a pretty foolproof multi-load system. To cut a long story short, it still holds up as a nice little game, and is definitely worthy of re-release.

Original release: March '92
Original publisher: Ocean
Original score: 94% (AA78)
Today's view: Still a very good game, with enough crammed in to make it entertaining, challenging, and fun.

VERDICT 90%

Trivial Pursuit
Hit Squad ■ 061 832 6633 ■ £3.99

What is the most popular board game in the western world to date? Erm... *Monopoly*? Nope... *Chess*? Silence... *Bertie Bassett's Nuclear Strategy*? Rejection... *Trivial Pursuit*? Yes! And that's for a cheese!

For all those who've suffered the computer representation of *Monopoly*, been cheated by a computer at chess (it's not me who's crap, they do cheat you know!), or been utterly wiped out at BBNS, this game is dedicated to you.

The game can handle up to six players (though you can have less, even one if you are playing alone), and control is purely through joystick. I personally dived straight in without the instructions, and had absolutely no hassles, as it's all very straightforward, and actually designed to be easy to use!

Several queries fly around with a game like this, though. Like are there a limited number of questions? Do the questions repeat? Where exactly is Ulan Bator anyway? Well... There is a whole tape load of questions, they do not repeat, we don't know (or care) where Ulan Bator is.

Nice use is made of pictorial questions



Leave that box to collect dust in the cupboard – now you can play TP on the CPC!



Does your lounge look like this? These programmers are paid too much.



A nice little representation of the main board – frankly, a little garish for our taste.

(they're shown on a slide projector) and musical questions (which are played on a rather chunky stereo), and answers are not typed in – TP (The little blokey) reveals the answer, and then asks if you were right or not. This leaves plenty of scope for cheating... (swirl of cape and evil laugh).

Original release: December 1986
Original publisher: Domark
Original score: 68% (AA15)
Today's view: We like it a lot more than 68%, but it can get a bit dull.

VERDICT 80%

Pipemania

T/dn ■ 0268 541126 ■ £3.99

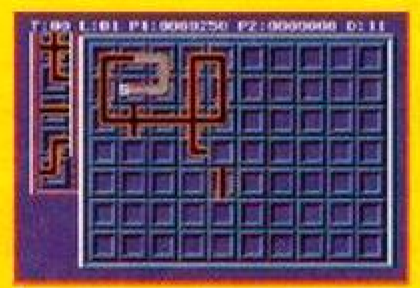
It's fun. It's addictive. It's challenging. It'll stop you working (*grr – ed*). It's *Pipemania*, from Touchdown.

The basic idea of this game is to fit various-shaped pipes together in order to keep the flow of water (or wooz) from spilling. Plot? That's all there is to it. The sections of piping are dropped onto a grid type thing, first coming along on a conveyor belt, a nice feature which kind of works as a 'next' display. The idea is to keep the water flowing round for a certain length of time (securing you access to the next level) with any distance covered above that being a bonus.

Extra bonuses can be gained by making the flow cross itself, and crossroad bits are supplied. There are also obstacles cunningly placed around the screen on higher levels, as well as wide pipes that slow the flow and other such stuff.

Bonus levels are in a *Tetris/Connect 4* style, where instead of just choosing where to put pipes, you have to drop them.

It's another one of those blindingly simple yet absolutely horny games that keeps you coming back for more. The difficulty level is pitched just right, increasing at a reasonable rate on the higher levels. Practice does help, and there is a definite art to playing *Pipemania*, so don't be put off if you're totally useless on the first level. Rod was, but then he still only gets through by the skin of his teeth, despite the large amount of man hours he's put into playing it (*I can still beat you – ed*).



The makings of a beautiful set of pipes – but time is short...

Go out and buy this game. It's more than good enough for a full price release, so it's well worth a budget price. You'll love it to bits.

Original release: June 1990
Original publisher: Empire
Original score: 88% (AA57)
Today's view: Horny.
Verdict 85%

VERDICT 85%

St Dragon

Kixx ■ 021 356 3388 ■ £3.99

If dragons were supposed to be all powerful, why are they all dead? It's apparently to do with a weak spot just under the wing - a sort of Achilles Heel (or *Achilles Armpit – ed*). And how did those great balls of lard (watch any Disney cartoon) manage to get off the ground with those tiny wings?

The mah-jong piece Red Dragon (I only know it 'cos I read the book by Thomas Harris and loved it to bits – read it) is a bit more like it – it's like a snake with wings, and it's red. That's the thing about the Chinese – aerodynamics.

And if China had so many dragons, how come there are no skeletons or fossils of them anywhere? And how long do fossils take to get it together anyway? If they take so long, how come the skeleton doesn't rot away first? Or what if someone or something moves it somewhere before the fossil has time to do whatever it does? And with the fossils of those swirly things, how come the rock gets inside them? It can't pour in (unlike glass, it's not a fluid), and if it was crushed in by rock pressure, why isn't the wotsit crushed?



It's a still shot, but then, the game is just as slow!



Another instance in which you will inevitably die. Oh dear.

Oh yeah... *St Dragon*. It's slow, irritating, and crap. The Spanish graphics don't work in the game, as the whole thing is too jerky, slow, and tedious. If you have the misfortune to be touching this with a bargepole at any time, don't.

Original review: Not reviewed
Original publisher: Sales Curve
Original score: Not Reviewed
Today's view: We hate it.

VERDICT 35%

Vendetta

Kixx ■ 021 356 3388 ■ £3.99

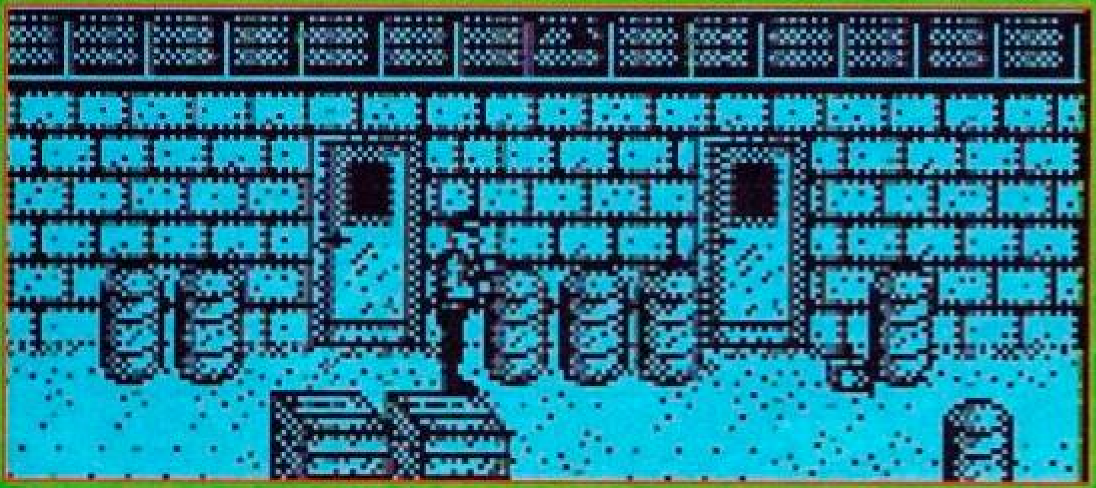
From the look of the cover, the game is probably about a hunky bloke running round in the vain hope of saving some bimbo's life. Either that or it's about some bloke who decides to kick crap out of the city. Sorry - that's the best we could do as there's no storyline supplied.

What can be said about this game? It's weird. At first, you think 'mindless shash', but after you play it for a while, you think 'steaming pap'. It's got all the ingredients – isometric 3D, lots of exploring, you get to kill people, there's ladders involved, but when you start to play it, you'll agree that it just doesn't gel.

Doors are entered very slowly, if at all - you're never sure whether you can go through or whether it's just a part of scenery, so most of the time, you give up trying. Jon walked into the office, and muttered something about kicking over crates to find weapons, but first you've got to work out how to even wiggle the guy's foot, let alone kick.



A pity of a loading screen - no use of colour or anything. Speccy port. Ack!



Kick one boring cannister. Not that it will do your corns any good, of course.

Oh dear oh dear. Unless you're made of very stern stuff you'll end up turning it off out of frustration after about five minutes.

Original release: May 1990
Original publisher: System 3
Original score: 73% (AA58)
Nowadays:Nice grafix, but terrible gameplay. Avoid!

VERDICT 30%

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Next Month

It's Multiface Madness in the March issue, – we present the biggest list of cheats ever!

Multiface Madness!

Over 1000 Multiface pokes in one issue! Phil Howard presents the biggest list of pokes ever seen for hundreds of top Amstrad games. If you've got a Multiface, THEN GET THIS ISSUE!



Multiface Madness: this issue!

The Black Box

In conjunction with the biggest list of Multiface pokes the world has ever seen, *AA* presents the definitive guide to Romantic Robot's Multiface: what it does, how to use it and why no CPC owner should be without it!

464 Plus upgrade

Upgrade your 464 Plus to a full 6128K with our excellent DIY hardware project. It's cheap, it's easy and we even tell you where to get all the bits!



Give your 464 Plus 128K with our DIY guide!

Alternative Avalanche!

Good heavens, look at this lot! *The Postman Pat Collection, Kids' Pack 2, The Popeye Collection, Flight Sim Pack* and *Classic Arcadia*. We review a deluge of releases from budget software house Alternative!



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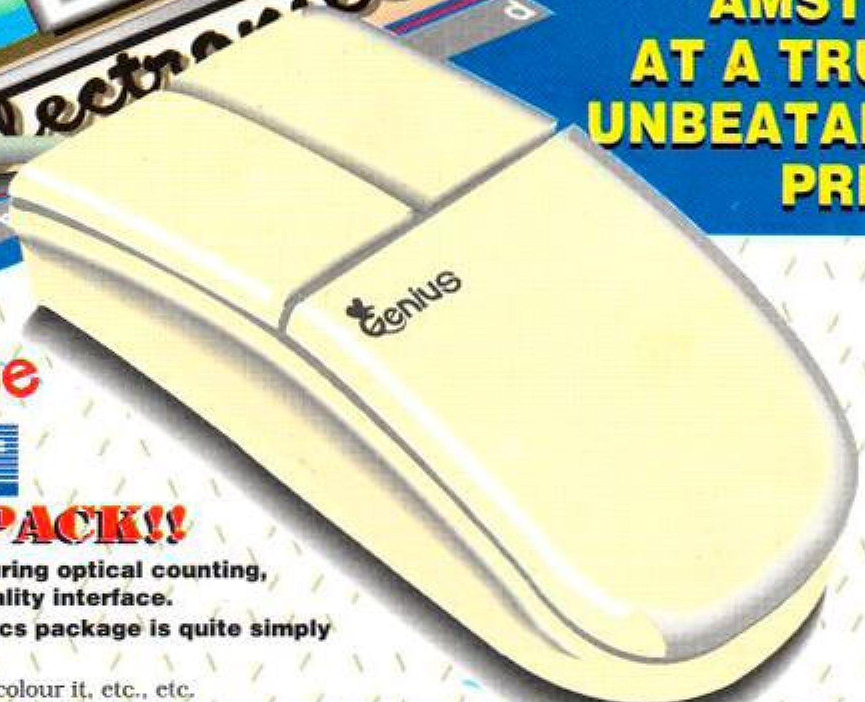
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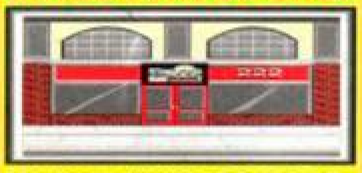
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